ARCHITECTURE

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Ferro-Concrete and Design

By Francis S. Onderdonk, Jr., T. S. D.

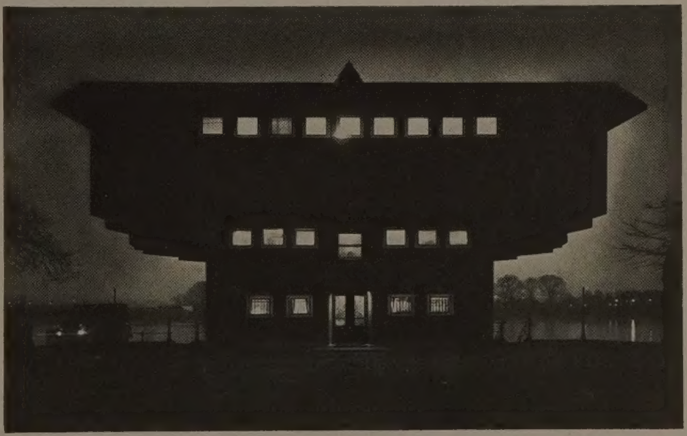
> "Craftsmen have always known that for the production of three-dimensional forms plastic materials are the very best, and, because of the great facility of such materials, have used them wherever possible."—J. J. Earley.

THE picturesque term "Liquid Stone" may have for many of us a shockingly unreasonable sound. Nevertheless it does express a combination of qualities that is to be found in cast concrete. When we add to this stonelike result the reinforcing ribs of steel to carry our tensile stresses, we have indeed a material and a method which may easily create a revolution in the architectural world. Neither the general public nor even the majority of architects, I fancy, realize that we are the fortunate witnesses of what may prove to be the birth of a new style.

It is a coincidence that as, eight centuries ago, France was the birthplace of Gothic, so now this same country takes a prominent rôle in the creation of the ferro-concrete style. Yet, as the illustrations show, architects in Central Europe also have contributed to the new style almost as much as such French architectural leaders as A. and G. Perret.

As far back as 1878 Monier claimed for ferro-concrete: "The forms and sizes have no limits." Concrete, due to its plasticity before setting, may be put into any conceivable form. The more a material can be affected by mechanical and chemical influences while being formed, the more possibilities there are in the finished result. The variety of methods for forming concrete, as well as the many modes of surface treatment, are powerful elements in its adaptability.

The restaurant gallery of the building shown below



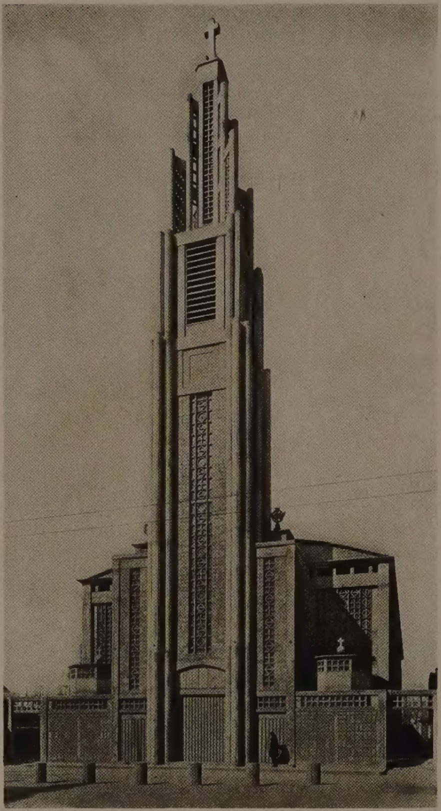
A Ferro-concrete restaurant overhanging the water—"Die Bastei," Cologne. W. Riphahn, Architect

There is undoubtedly a prejudice among many architects against concrete because they associate with the material the limitations of wooden moulds. This is not surprising, for perhaps most concrete buildings erected to date have angular, bulky shapes through the fact that these are the easiest ones to create by wood-centering. The illustrations, however, show examples where curved shapes and slender forms have been produced in concrete by designers who have rid themselves of the wood-centering limitations. Just as the intricate, delicate forms of late Gothic developed from the crude massiveness of the Romanesque, so ferro-concrete's future is likely to be something that will contrast strongly with the present primitive, massive forms.

Ferro-concrete greatly extends the scope of our third dimension. The traditional styles of architecture are characterized by a close adherence to the vertical—

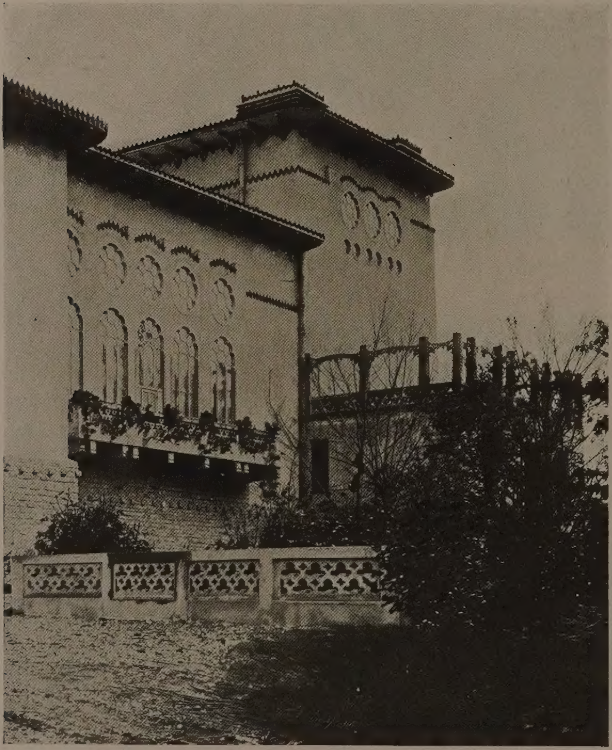
stone laid upon stone, brick upon brick. Projecting cornices and balconies mark the limit of daring in the designer's vocabulary. The innate possibilities of ferro-concrete construction make projection on a much larger scale a natural, almost commonplace, matter. For the first time the architect is fully master of space. As the Baroque architect curved and cut into the rectangularity of his floor plan, so the architect in ferro-concrete will learn to abolish the straight contour in section and elevation. This ferro-concrete architecture will be a veritable "Raumkunst"—space-art.

A further advantage of ferro-concrete lies in the possibility of sculpturing it before the final set. M. Sarrebezolles, a French artist, has indicated some of the possibilities of concrete sculpture on the tower of the Church of St. Louis in Villemombles, near Paris, which was designed by Paul Tournon, professor at the Ecole des Beaux-Arts. The illustration at the top of page 246 shows the architectural significance of this work. It is interesting to note that the concrete was of the same mix as that of the tower proper, the aggregate being of medium size without large pieces. A portion which had been cast in an angular mould was sufficiently set the next day to allow the forms to be removed, so that the sculptor could begin work with the chisel. This work had to be done at considerable speed and, as a matter of fact, the sculptor completed four heads in three hours.

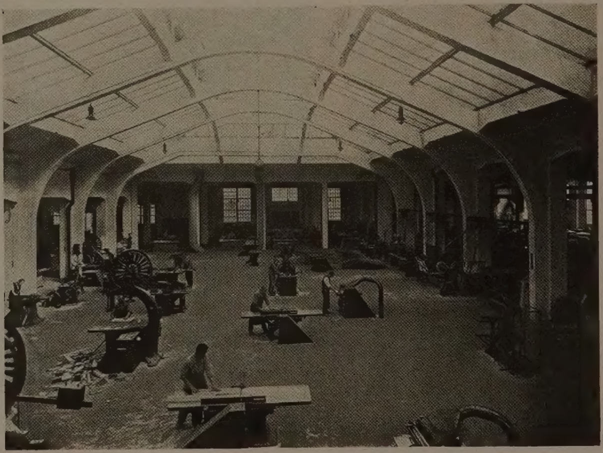


Church of Notre Dame, Le Raincy, Paris. A. & G. Perret, Architects

More than twenty years ago, M. de Baudot employed concrete tracery in the Church of St. Jean de Montmartre, Paris. Since then other architects have sensed the possibilities of ferro-concrete in producing grilles by the simple process of placing removable inserts in the moulds. As far back as the Eighth International Congress of Architects in Vienna in 1908 the Hungarian architect, Professor Medgaszay, reported the utilization of these possibilities. His theatre in Veszprem shows his ingenuity in achieving tracery in the windows and balustrades—even the brackets supporting the balconies are pierced. Incidentally, this theatre is ventilated by a central system so that the windows need not be opened. The ferro-concrete window openings are glazed and closed hermetically. The concrete ribs have a rebate, both inside and out, in which the glass was set, the rebates having first been varnished



Theatre in Veszprem, Hungary. Professor I. Medgaszay, Architect



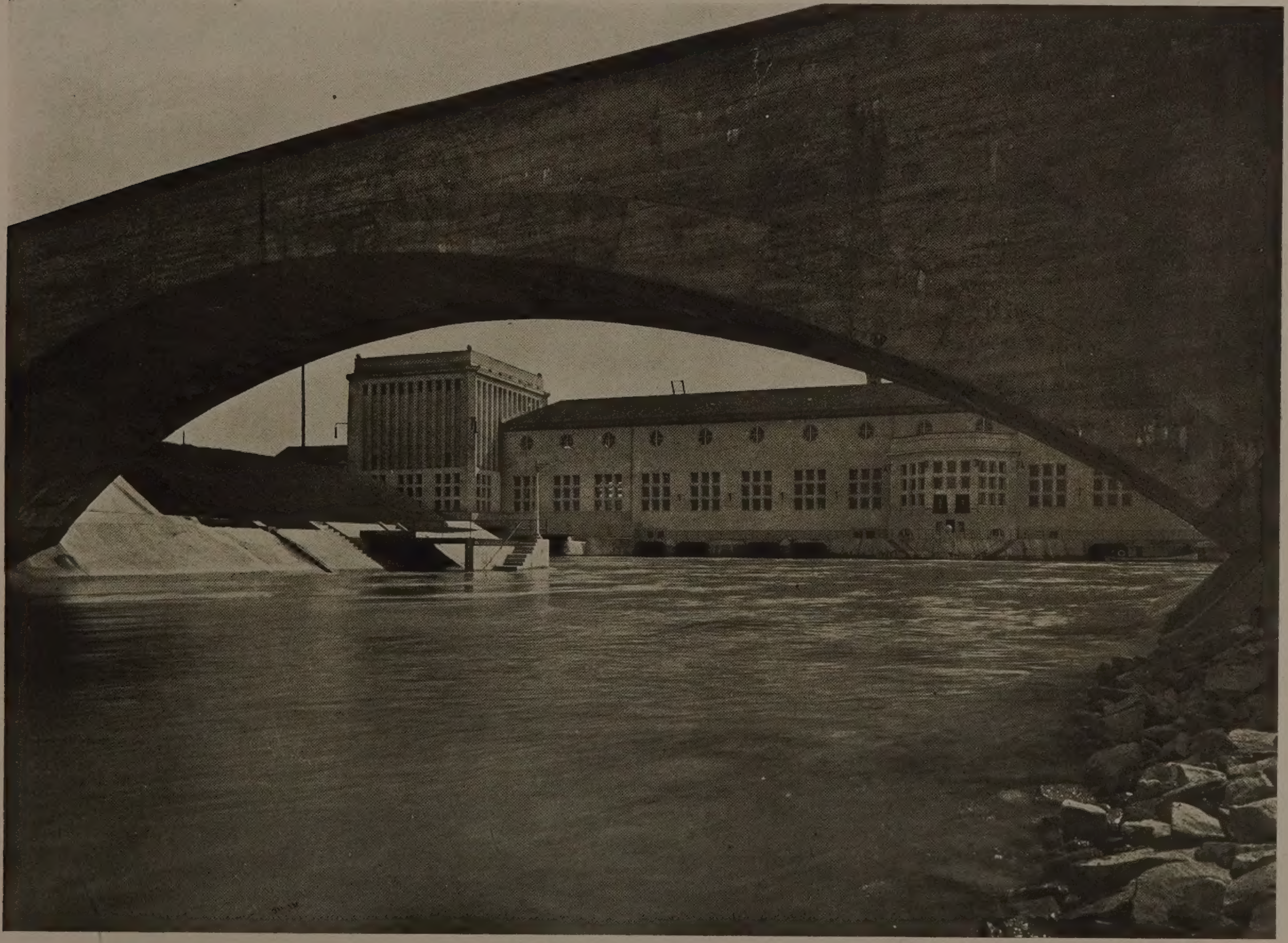
Interior of the carpenter shop of Henschel & Son, Kassel. C. V. Brocke, Architect several times, the panes then being secured with putty.

The all-concrete churches at Le Raincy and Montmagny, suburbs of Paris, designed by the brothers Perret, represent a still farther advance in the development of concrete tracery. The entire wall, with the exception of certain small areas, consists of a concrete grille. Windows, as we know them, have disappeared, permanently set glass filling the thousands of voids in the ferro-concrete network. Masonry as a pattern set off against a background of voids (glass) is one of the chief characteristics of ferro-concrete design in the hands of these architects. Whether the patterns in these particular examples are pleasing or not, is a question of secondary importance; we must consider them as the primitive beginnings of a new type of wall treatment. Parenthetically, the cost of Le Raincy Church, approximately $30,000, explains the simplicity of the tracery.

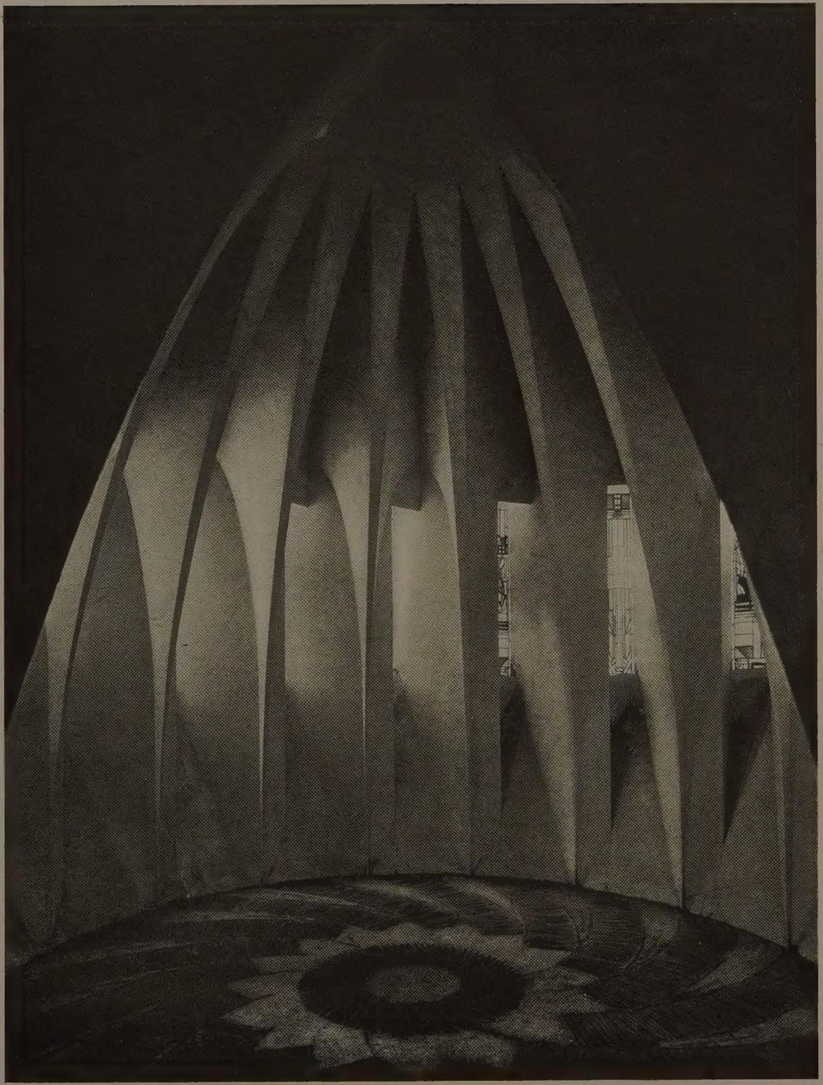
St. Therese, at Montmagny, standing clear of other buildings, receives so much light through the concrete tracery of the farther wall that the colored panes of the near grille glow brilliantly for one standing outside. The effect is somewhat like that of a lampshade of colored glass. Many an architect who stands inside of St. Therese predicts a revolution in architecture, of which this structure is one of the first indications.

The marks of the forms are still visible upon the concrete surfaces of these churches, left probably for economy's sake. Contrary to the opinion expressed by some architects, the author believes that these marks detract from the æsthetic value of concrete, denying its fundamental unity.

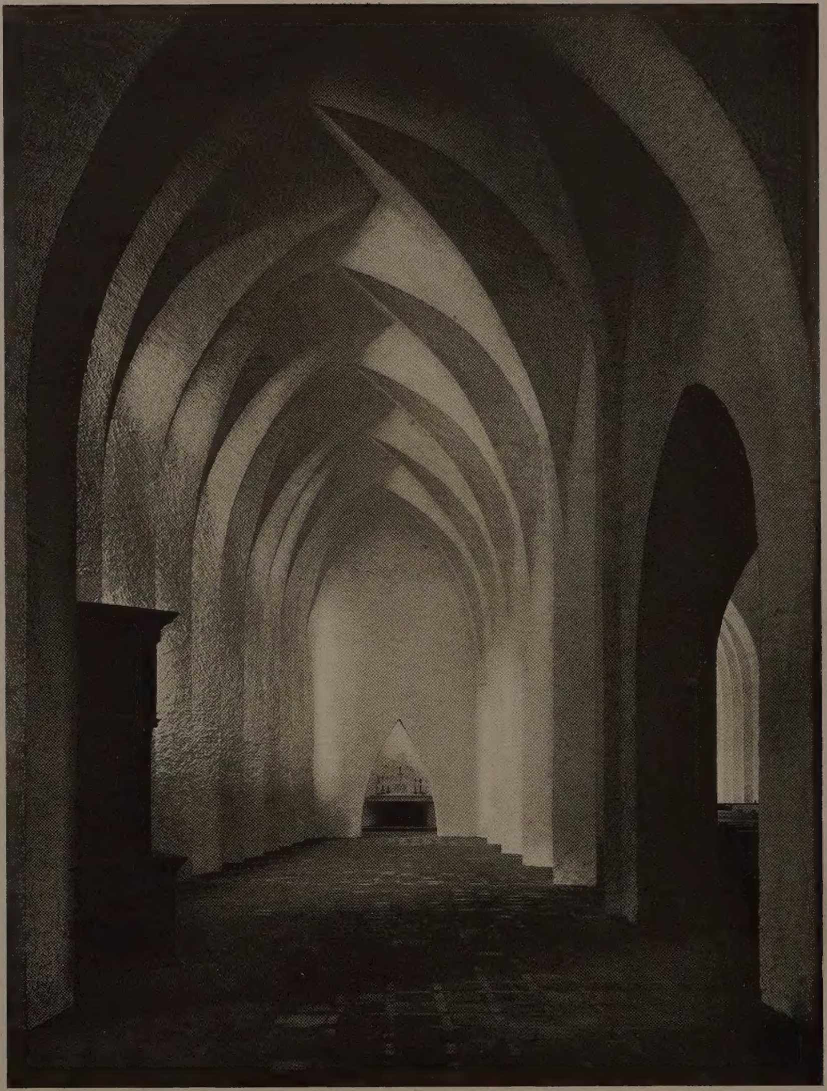
The modern architect must take into account the psychological facts of our present-day life. Hundreds of impressions tap upon the senses of the pedestrian and automobilist, striving to gain his attention. Billboards, window displays, electric-light signs, motion-pictures vie for his attention. His nerves become accustomed to strong effects and powerful contrasts. As a result the traditional ornament and bas-relief sculpture have become too weak in their appeal. Their shadows and high lights are too much alike. Ruskin's advice, now so much in disrepute, was never more apt than to-day: "The architect's chief means of sublimity are definite shades . . . the power of architecture may be said to depend on the quantity (whether measured in space or intenseness) of its shadow." In our climate houses need a certain amount of window area to admit sufficient light. In order to provide some restful wall space, the architect is prone to leave the remaining



Bridge and power-house of the Mittlere Isar, A. G., Finsing, Bavaria

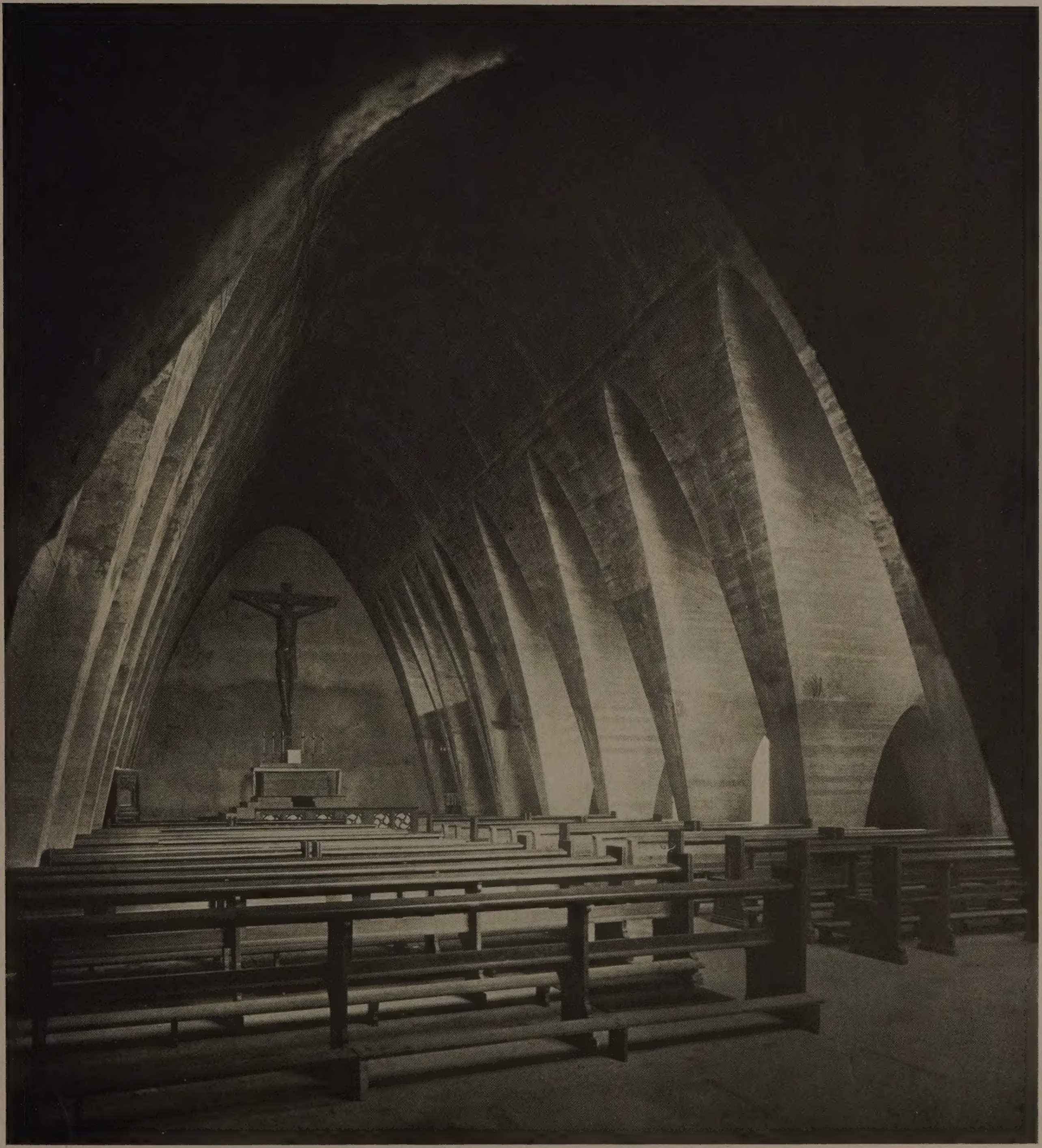


Resurrection Chapel adjoining the Kriegergedächtnis Church at Neu-Ulm. Professsor D. Bohm, Architect



Aisle of the Kriegergedächtnis Church where the nave, columns, and wall piers are placed diagonally. Professor D. Bohm, Architect areas undecorated, counting only upon the window void with its deep shadow and definite outline as a decorative motive. But are the customary rows of rectangular windows really decorative? Perhaps this is another opportunity for concrete tracery as an effective method of making our façades more interesting. It at least is a possibility that is ours alone, since former generations did not have the mastery of ferro-concrete that is ours.

As was practically always the case in former transition periods, the old forms are carried on into the new material. The type of frame that we have so long used —two vertical posts surmounted by a beam—is merely reminiscent of the old materials. Gravity demanded vertical piling of stones or bricks; steel and wood have favored frames and angular outlining. Ferro-concrete, however, is not bound by these limitations. The girders illustrated in the interior of the carpenter-shop of



Nave of the Catholic church in Bischofsheim, where Professor Bohm has made free use of the parabolic arch

Henschel & Son are more nearly in the true spirit of ferro-concrete. Still better, however, remembering that sides and top, walls and roof are, in this new material, a single unit, may the parabolic arch and vault express this fact. The parabolic arch is the economical one: with a given load it requires the smallest amount of material. It would seem that the parabola is to play a more important rôle in the future. It offers not only a logical solution but also a beautiful one. It has the changing curvature which again, according to Ruskin, is a characteristic of all beautiful curves. Hundreds of concrete bridges now show its dynamic grace.

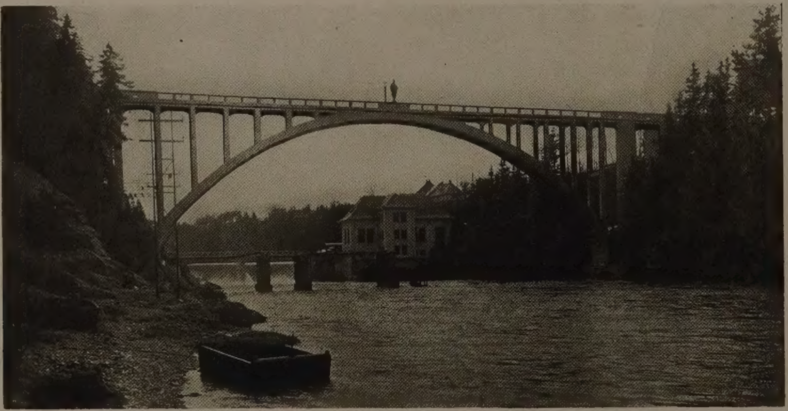
Detail of concrete sculpture on the tower of St. Louis, Villemomble

Professor Dominikus Bohm, head of the Department of Religious Art, Cologne Crafts School, has created the most outstanding example of the parabolic vault in the Catholic church at Bischofsheim, Germany. This church, as well as the unique one at Neu-Ulm, marks Professor Bohm as one of the leading architects associated with the ferro-concrete style. What the brothers Perret have done for concrete tracery, Bohm has achieved for the parabolic vault. The Bischofsheim church may be too dark, but that is something that could easily be overcome by inserting glass-stones, such as have been used in Europe for more than twenty years. The Neu-Ulm church, the interior of which is illustrated on page 244, is especially remarkable in that it is built without moulds by "permanent centering." All of its vaults, excepting those of the Baptistry and Resurrection Chapel, were cast in concrete without moulds by the Bohm system. This is similar to methods which have been devised in the United States: the main reinforcing rods are fastened to temporary wooden joists by wires; the remaining rods are in turn attached to the main bars; a mesh of "Strauss-bricklets" (small burnt-clay elements united by wires) is tied to the reinforcing network and a thin concrete layer applied on top of the mesh. Concrete of one part cement, one part sand, and one or two parts pumice sand (volcano ash) is well suited to the purpose on account of its light weight and acoustic properties. Two or three days later ordinary concrete is poured from above in the required thickness, and the mesh bricklets plastered with cement mortar from below. After the concrete has set, the supporting wires are cut and the wooden supports removed. The reinforcing must be calculated and placed as for a vault poured on wood-centering.

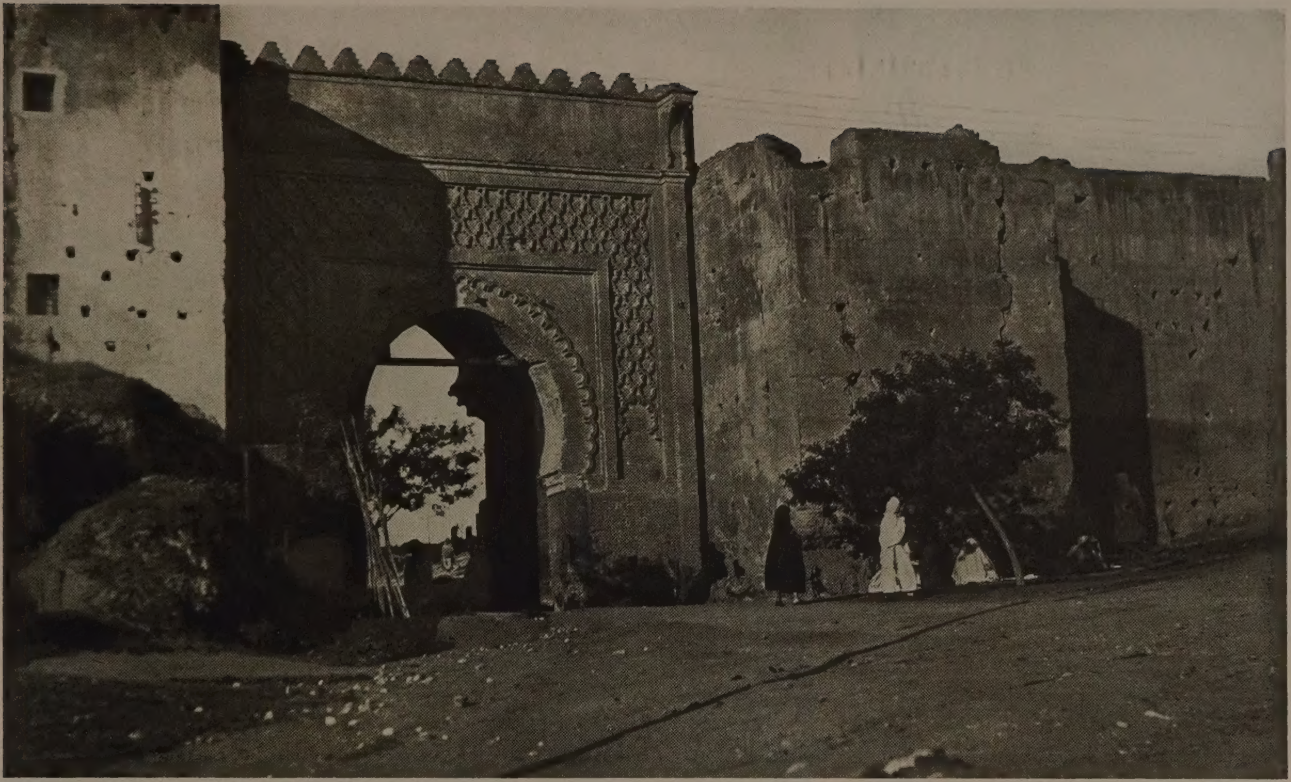
The Neu-Ulm Church owes much of its effectiveness to the rhythms of light and shade produced by the angularity of the contrasting planes. From the outside the wall has projections resembling in section the teeth of a saw. In the Resurrection Chapel these projections are curved as if the whole vault had been twisted. There is a suggestion here of the wide possibilities opened up by ferro-concrete construction.

In the interior of the Engelbrekt Church, Sweden, Professor Wahlman has made use of the parabola in a series of arches supporting the roof over the four arms of the crossing. The parabolic arch has also been used in the design of market-halls, pavilions, gymnasia, and hangars as well as in many other buildings in Germany and France. In England it has even entered the field of small-house design in the concrete "Cat-ar" houses in which walls and roof combine in one parabolic vault.

[Doctor Onderdonk's article is an extreme abbreviation of the material he is soon to publish in book form under the title "The Ferro-Concrete Style."—Ed.]



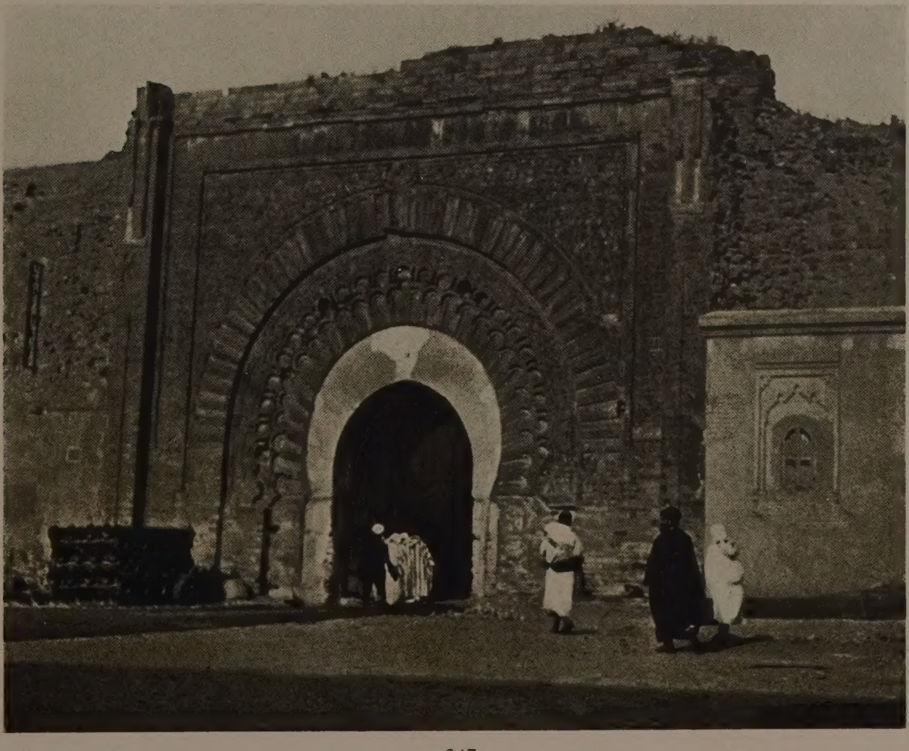
Concrete bridge with cast-iron core at Gmunden, upper Austria. V. Emperger, Engineer



One of the great gates which prick the massive walls surrounding the ancient city of Fez

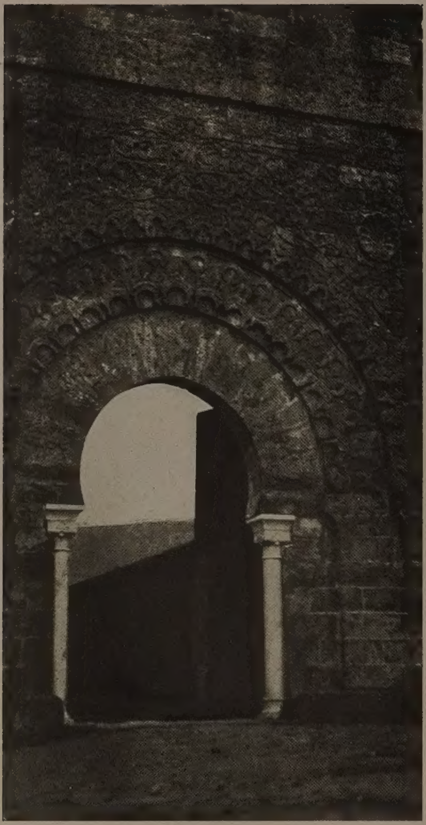
Some Mohammedan Portals

A COLLECTION OF PHOTOGRAPHS BY MAY MOTT-SMITH

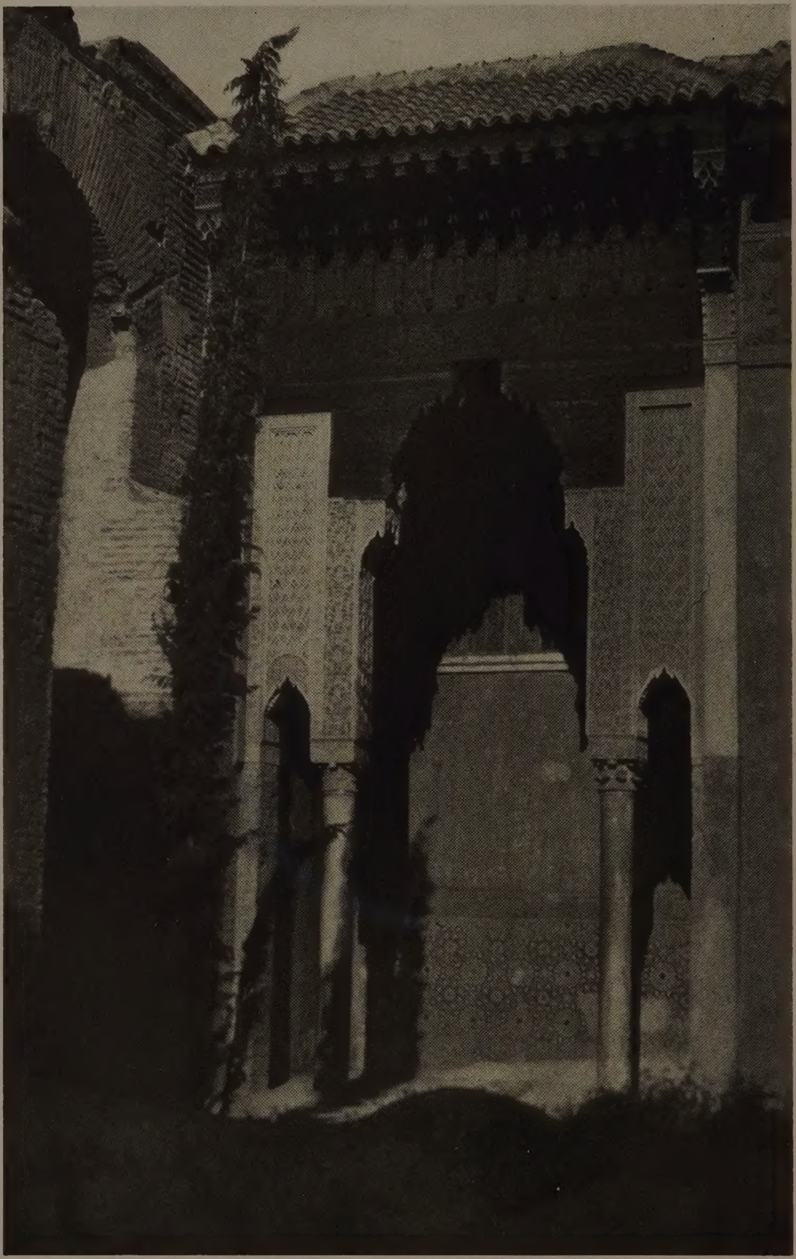


A gateway in Marrakech, Morocco

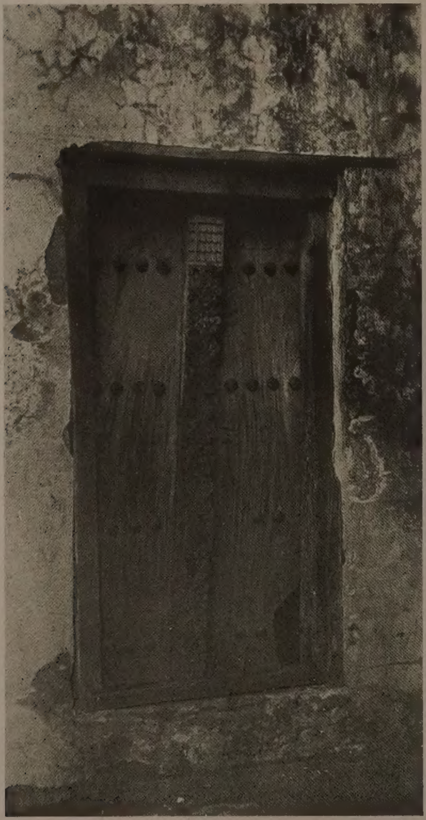
Dating from the fifteenth century



A fifteenth-century portal of the Mansoura, near Tlemcen

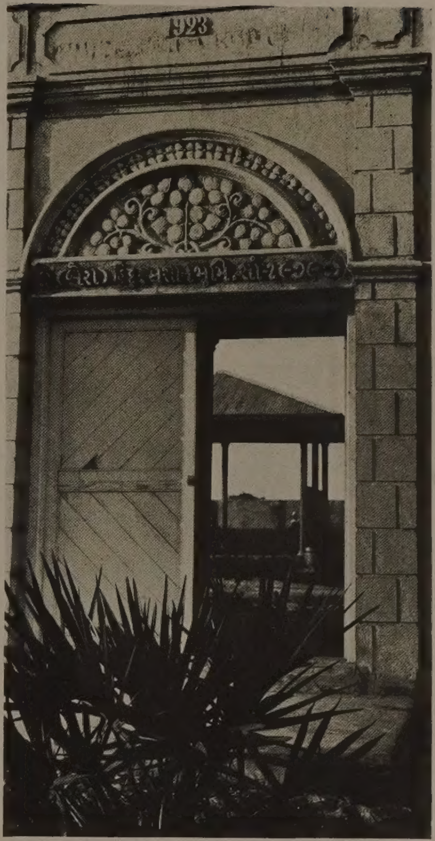


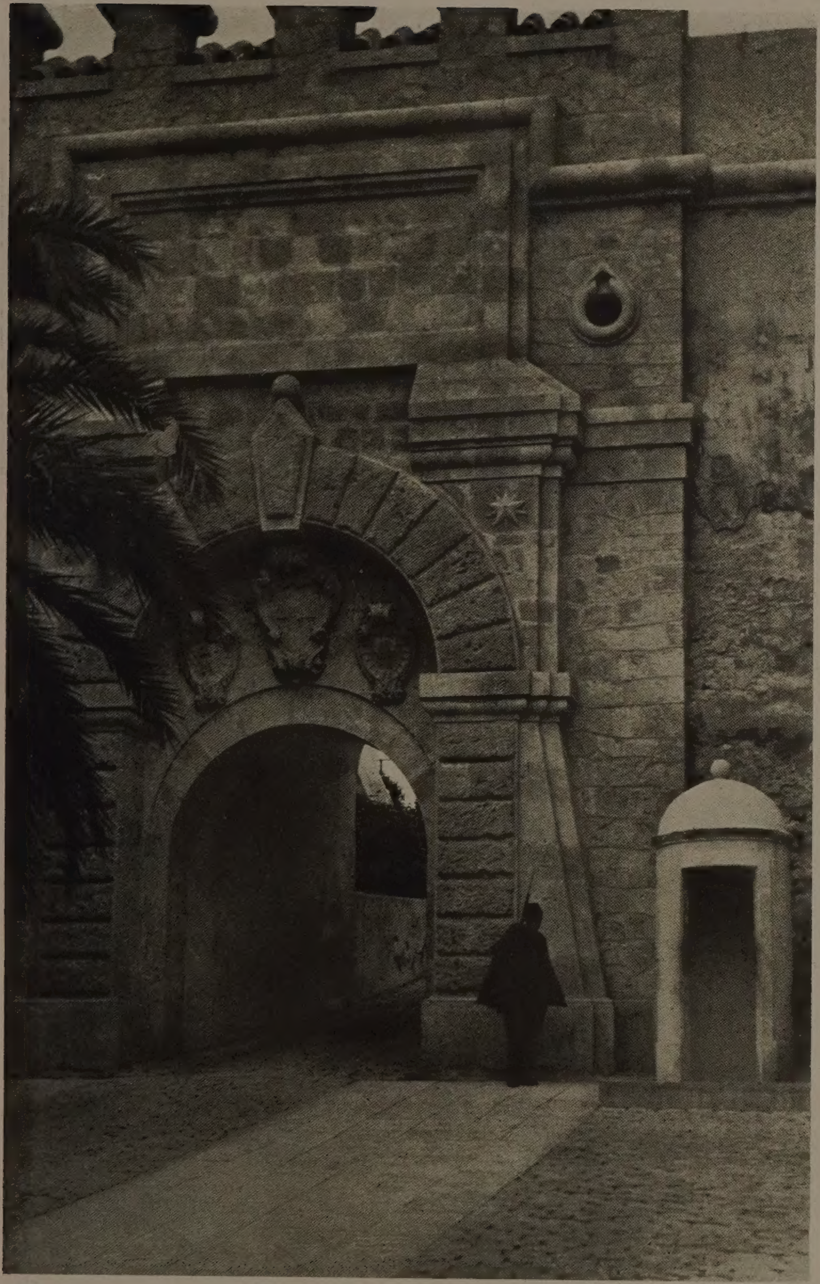
The Saidian Tomb, Marrakech, Morocco



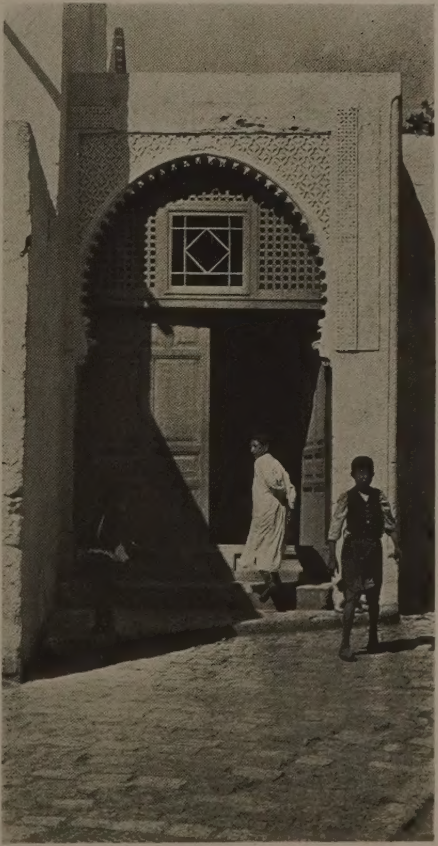
A doorway in Zanzibar. The carving on the door is Arabic

Modern entrance of an old pattern in Beira, Portuguese East Africa. It is a gateway to a Hindu cemetery showing the suttee or funeral pyre

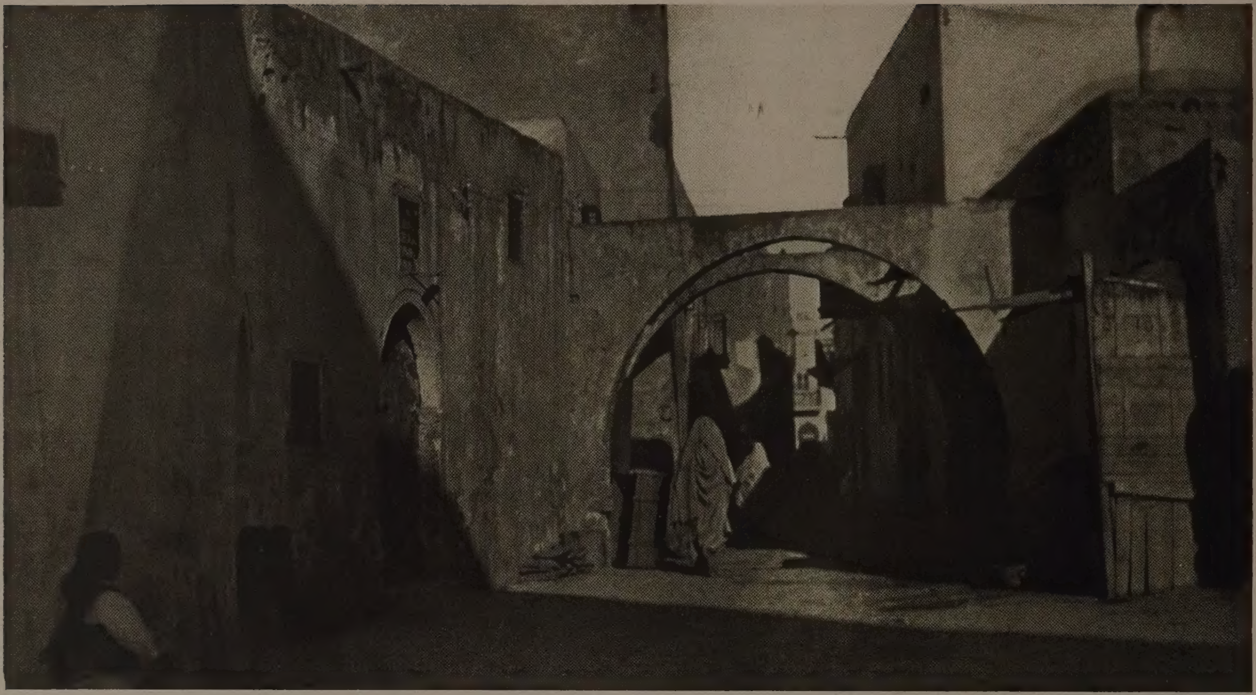




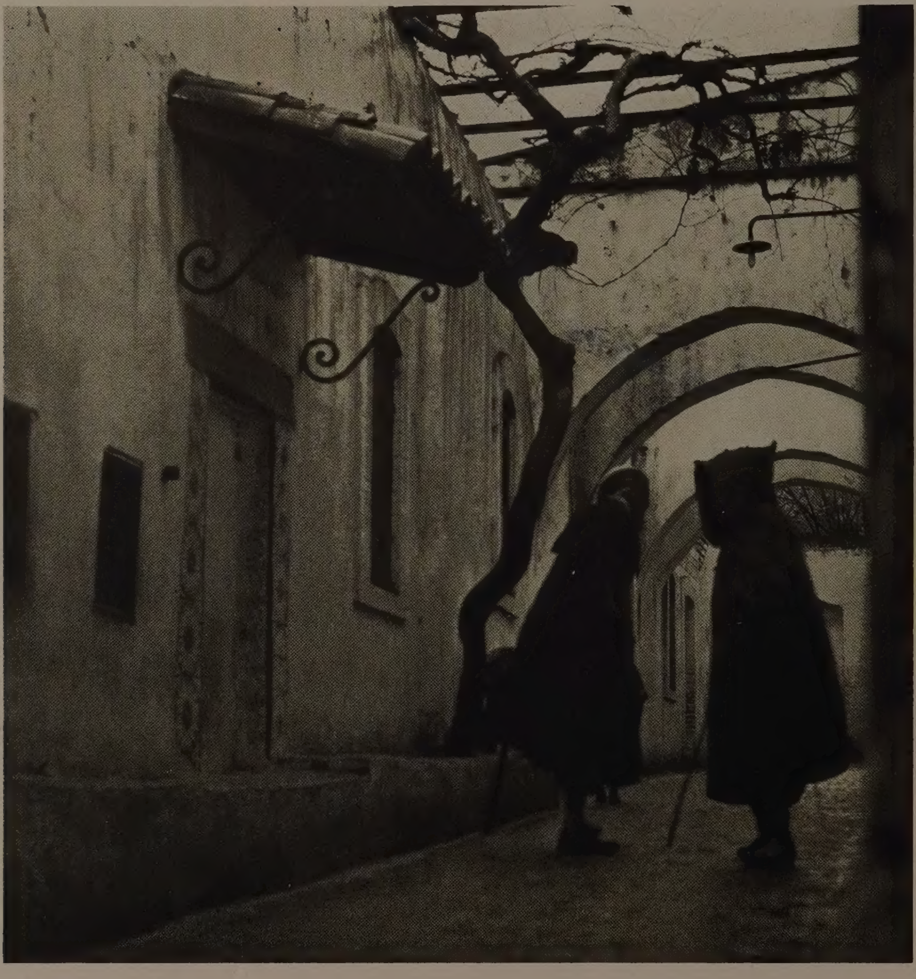
New gateway to the old Turkish fort, now the Governor's Palace, Tripoli



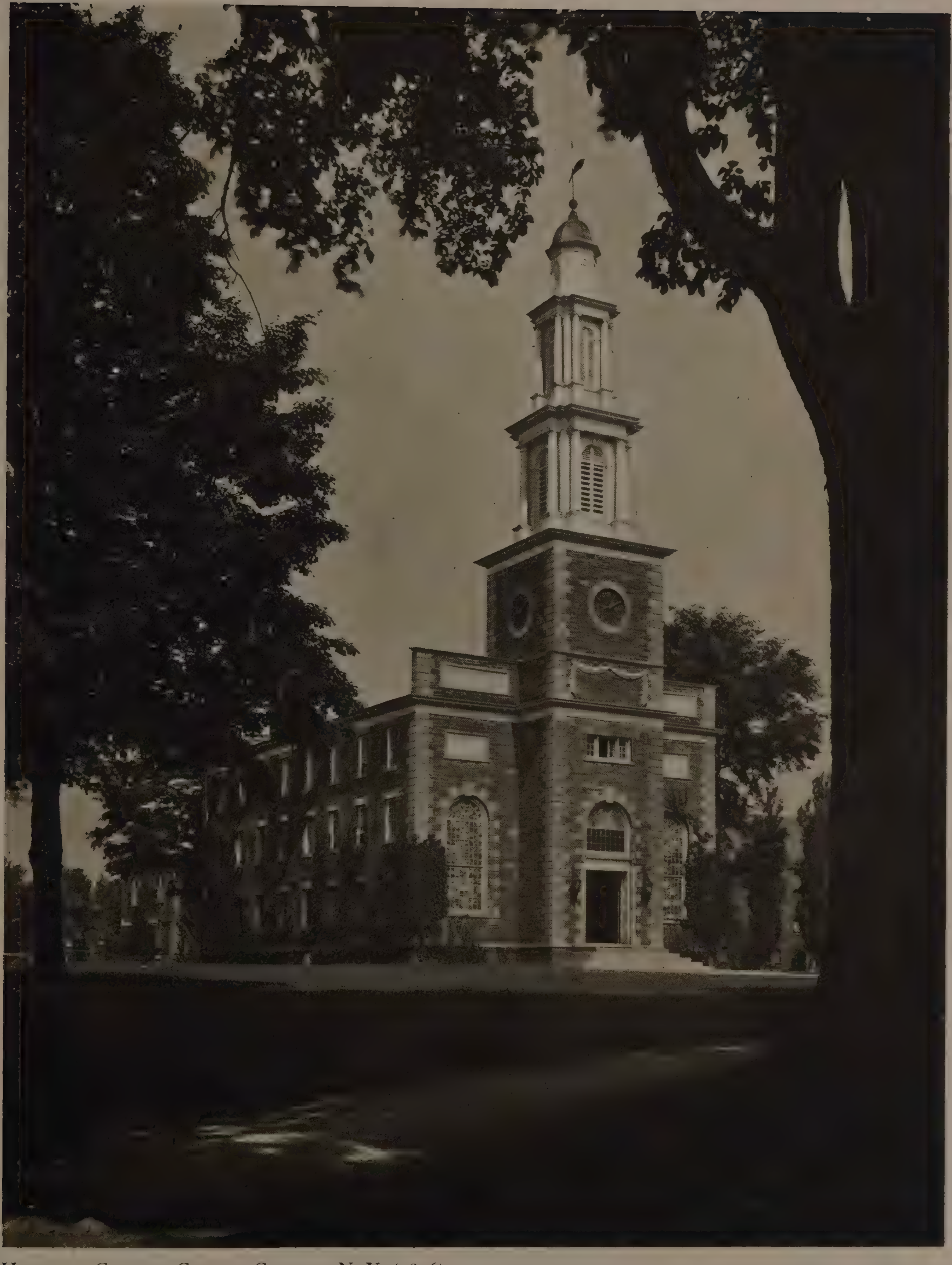
A typical entrance to the house of a prosperous Moroccan



An old gateway in the Souks of Tripoli



A little doorway of peacock-colored tiles in an alleyway in Tlemcen



Hamilton College Chapel, Clinton, N. Y. (1826) PHILIP HOOKER, ARCHITECT

A Letter from Philip Hooker, 1825

A LETTER FROM THE ARCHITECT TO ONE OF THE TRUSTEES OF HAMILTON COLLEGE REGARDING THE CHAPEL TOWER, A PHOTOGRAPH OF WHICH IS SHOWN ON THE PRECEDING PAGE

Dear Sir

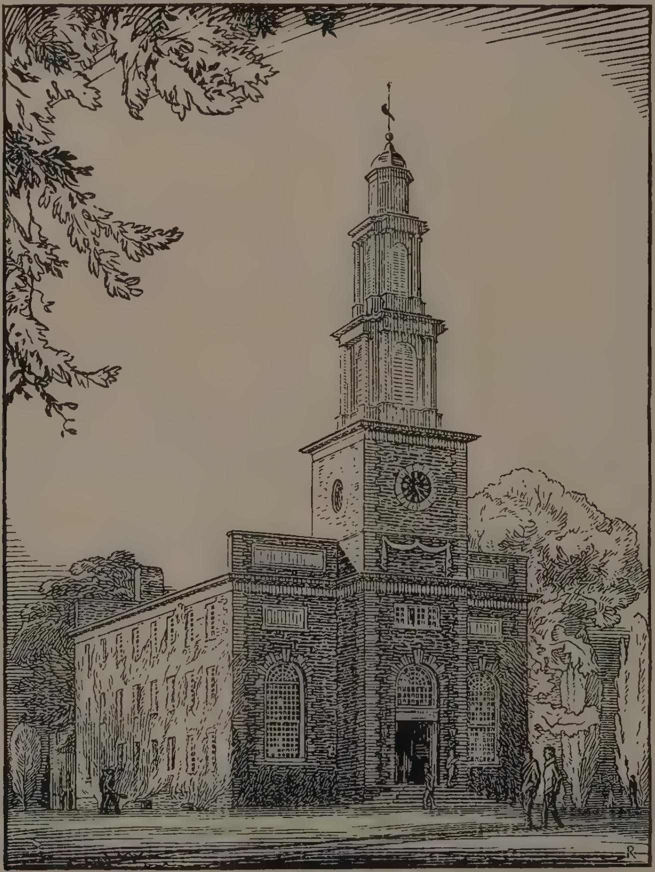
I have received your favour of the 19th instant I received a communication from the late M^{r} E Clark dated the 8th of last month, giving me a particular description of the Scite & Buildings of Hamilton College — requesting me to forward a plan or Elevation of a front of a chappel, to have a Tower & Steeple Standing entirely without the Building which was to be 75 by 50 feet front — He informed me that the Building would be, "erected for other purposes, beside, Religious & Classical exercises" that it would have "three tier of windows" and that it would be "33 feet in height above the water table"

On the receipt of his letter I wrote to him to inform me of the distribution of the interior the better to enable me to design a front to answer the internal arrangement, and whether a Steeple with a proportionate Spire would be preferred — or whether Something of the Style of a cupola with two Sections finished with a dome would not be more proper for a chapel than a lofty Spire — the tower I presume ought to Contain a clock — and a College bell as a matter of course. If I understand the thing Correctly the Steeple is to be placed in front, or at the East End — is the Stairs to be carried up in the tower or Elsewhere.

If you will favour me with a few hints on the Subject, I shall forward a drawing — for the same forthwith

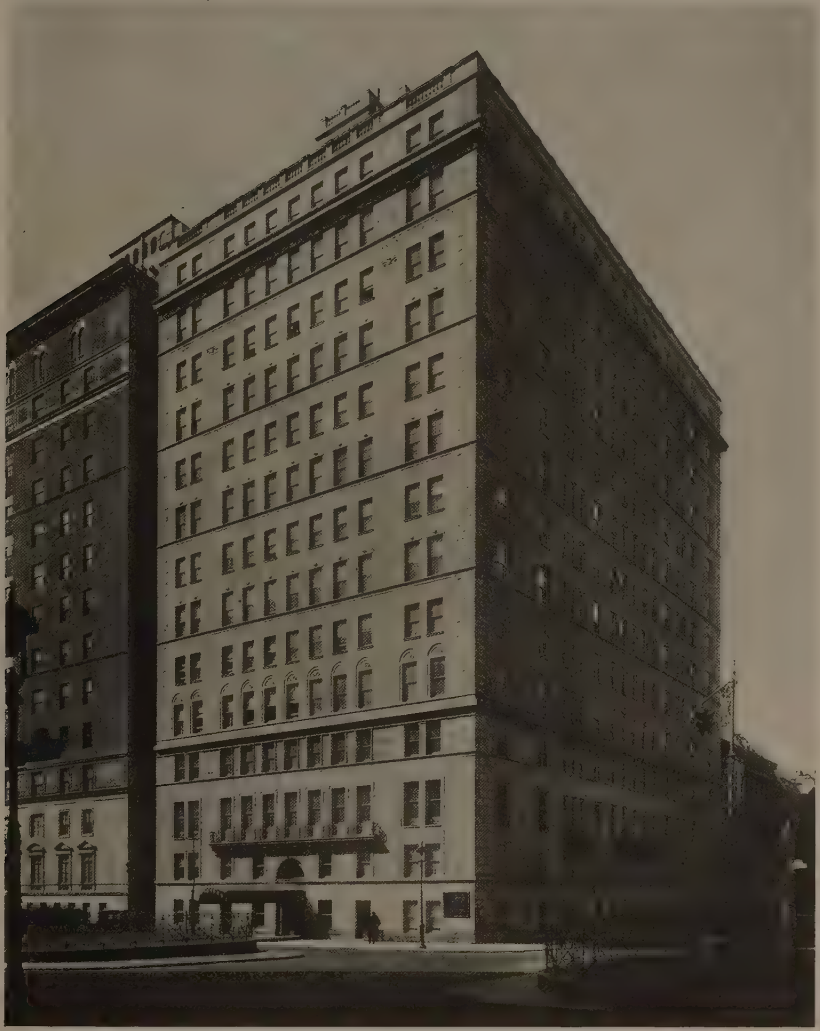
Respectfully yours
P. Hooker
23rd Nov^{r} 1825

J H Lothorp Esq^{r}



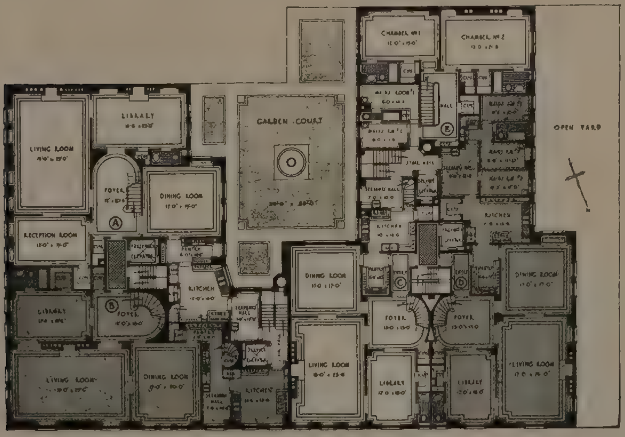
Hamilton College Chapel
from the woodcut by Rudolph Ruzicka

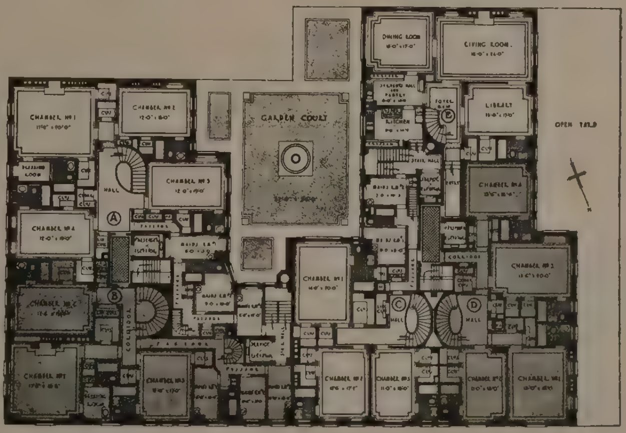
New York's Prize-winning Apartment-Houses for 1927

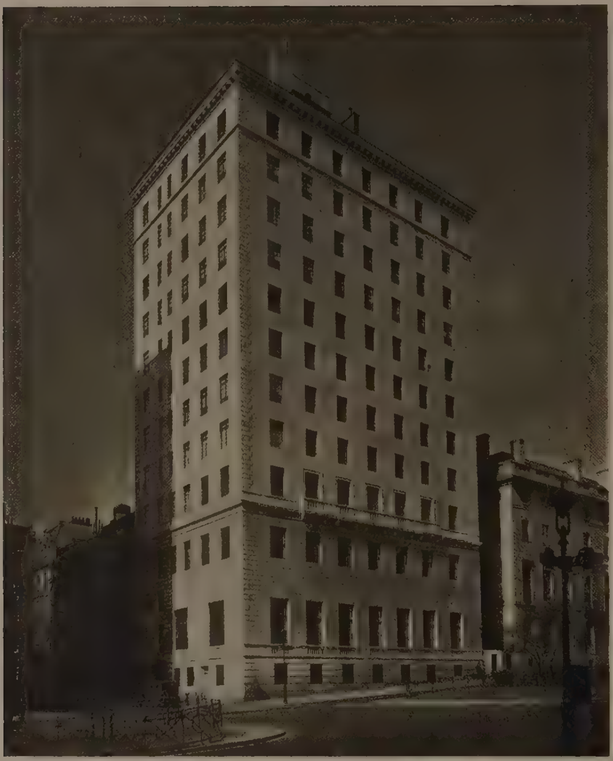


THE New York Chapter, A. I. A., has established the custom of recognizing merit in apartment-house design in a series of annual awards. There are two classes — those of more than six stories and those of six stories or less, known as "walk-ups." In the former class, the first award this year went to J. E. R. Carpenter, Architect, for the apartment-house at 812 Park Avenue. The exterior and two typical floor-plans are shown on this page. These plans show the lower and upper floors of the duplex arrangement.

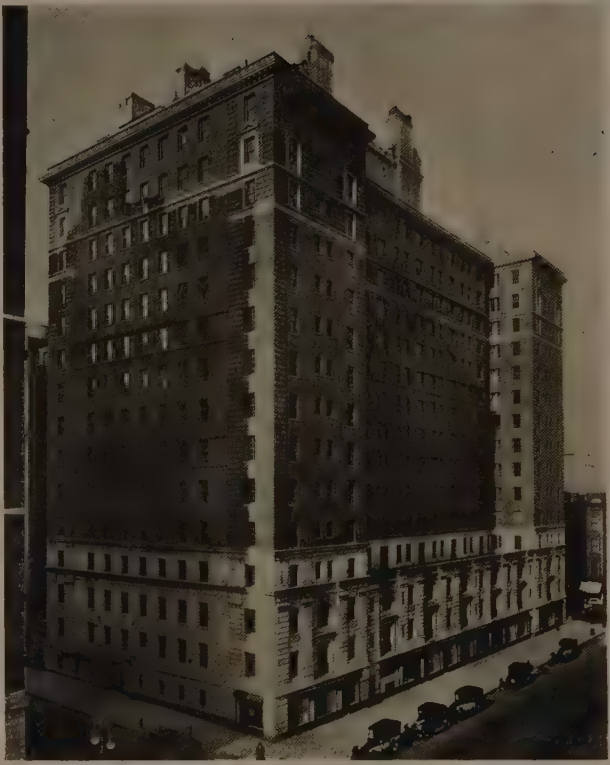
Certificates of merit are awarded also to the owners and to the builders. Photographs and, in some cases, plans of the other winners are shown in the following pages.



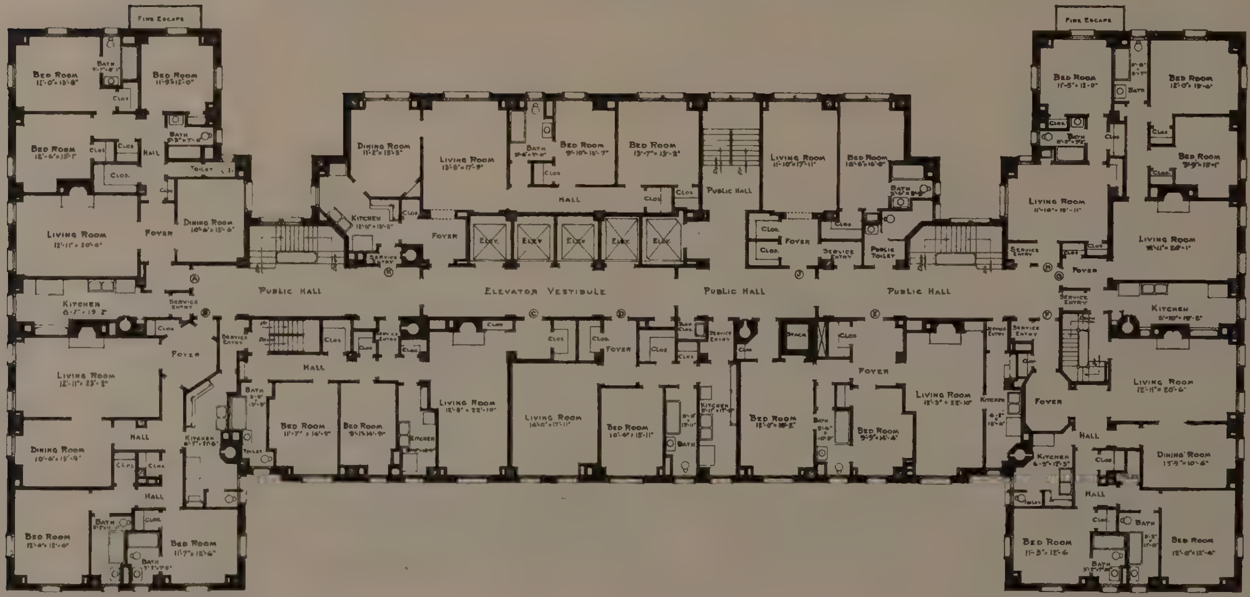


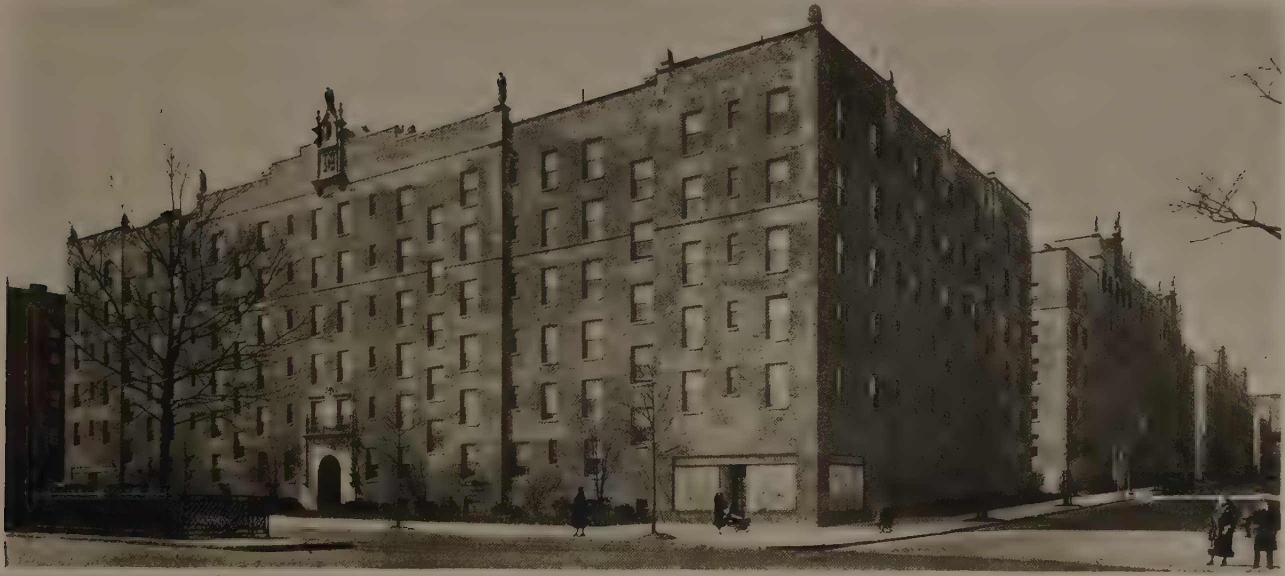


Second Award in the class of apartment buildings more than six stories in height: to York & Sawyer, Architects, for 660 Park Avenue—a co-operative building.

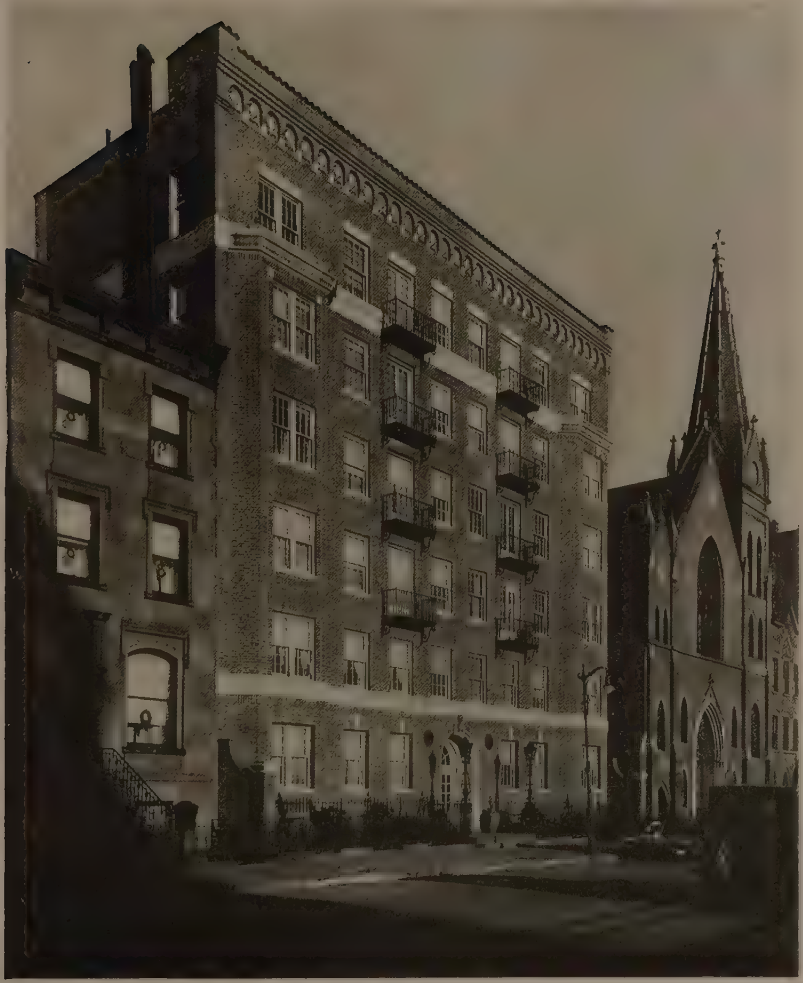


Third Award in the class of apartment buildings more than six stories in height: to Carrère & Hastings, for 101 West 55th Street. The plan reproduced below is of the fourth, seventh, and tenth floors.

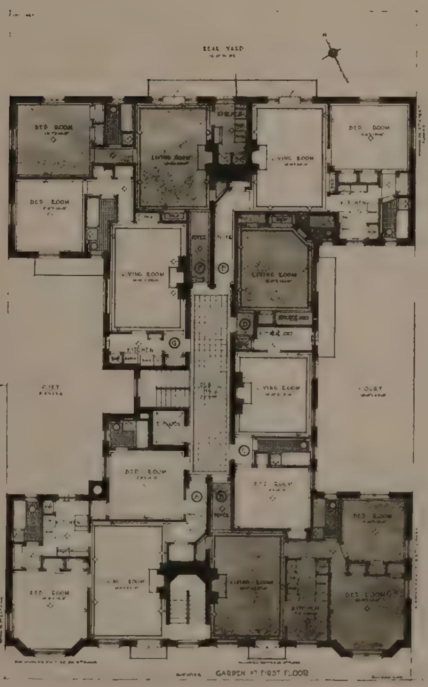


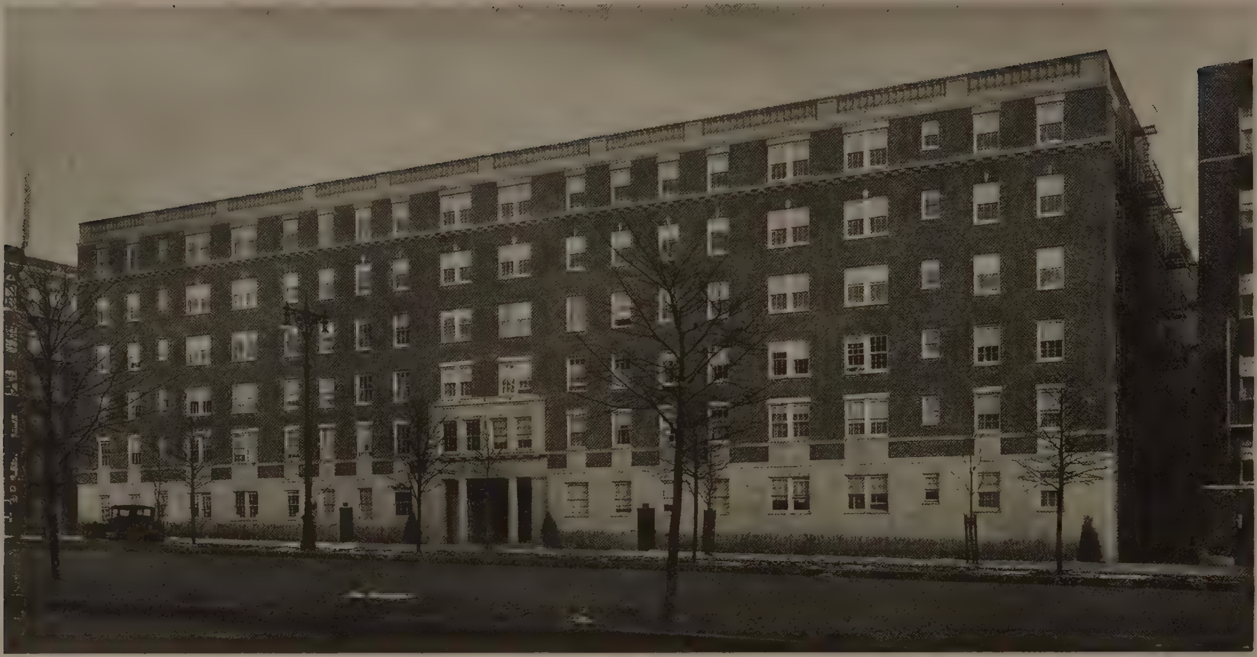


In the class of apartment buildings of six stories or less, the First Award went to Andrew J. Thomas for the Paul Lawrence Dunbar Apartments. These were built by John D. Rockefeller, Jr., for the use of negroes.

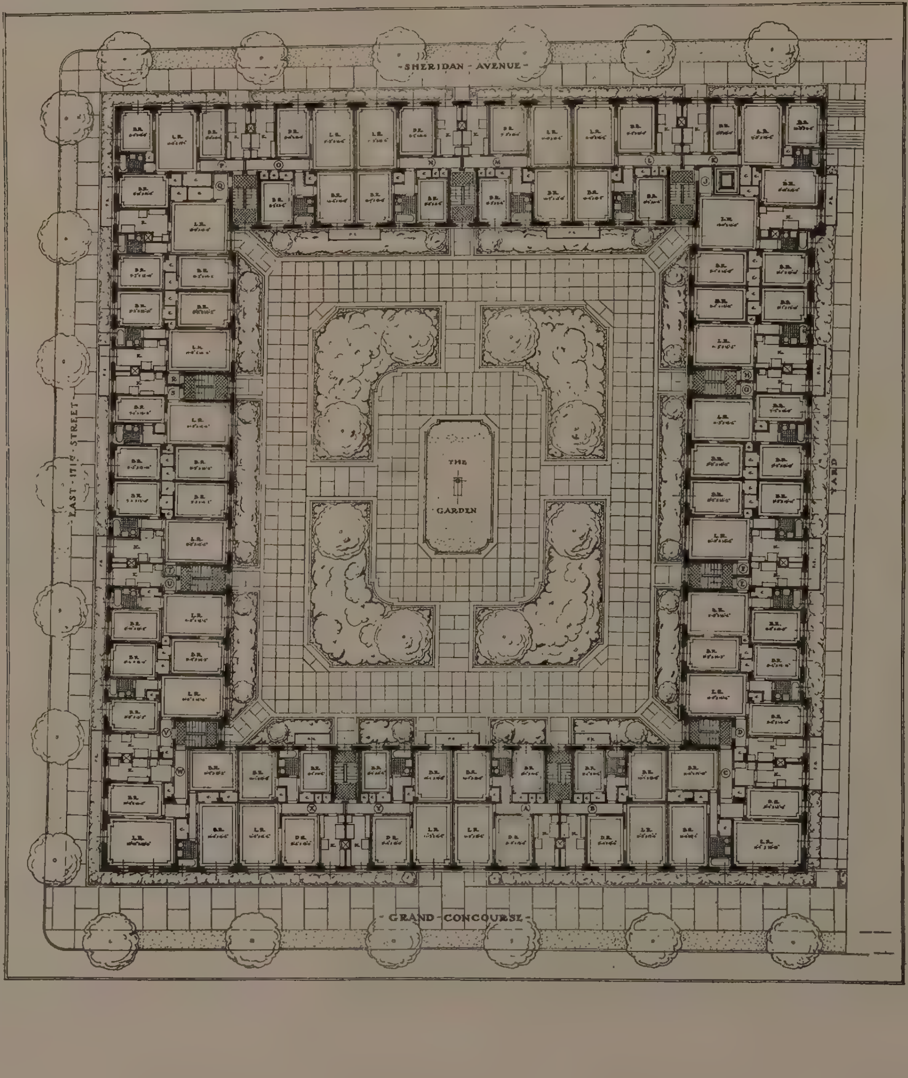


Second Award in the class of apartment buildings of six stories or less went to Emilio Levy, Architect, for 345 East 68th Street. Below is shown the typical floor plan, indicating the division into apartments of various size.

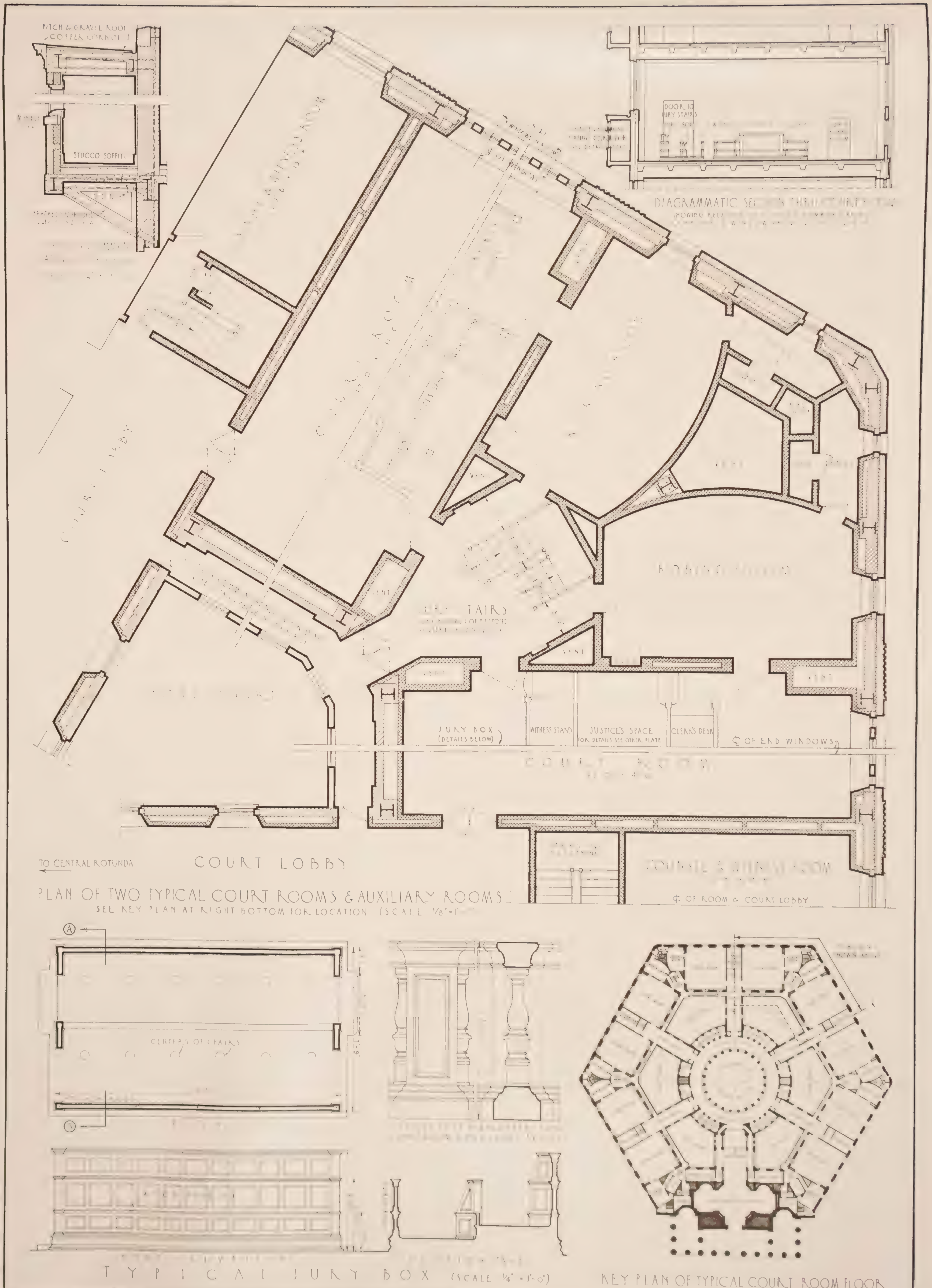




© *Amemya*



Third Award in the class of apartment buildings of six stories or less went to Aymar Embury, II, for Vincent Astor's Concourse Apartments. The plan shown is of a typical floor.


PITCH & GRAVEL ROOF (COPPER CORNICE)
STUCCO SOFFIT
DOOR TO JURY STAIRS
DIAGRAMMATIC SECTION
COURT ROOM
JURY STAIRS
VENT
ROBING ROOM
JURY BOX (DETAILS BELOW)
WITNESS STAND
JUSTICE'S SPACE FOR DETAILS SEE OTHER PLATE
CLERK'S DESK
℄ OF END WINDOWS
COURT LOBBY
TO CENTRAL ROTUNDA
COUNSEL & WITNESS ROOM
℄ OF ROOM & COURT LOBBY
PLAN OF TWO TYPICAL COURT ROOMS & AUXILIARY ROOMS
SEE KEY PLAN AT RIGHT BOTTOM FOR LOCATION (SCALE 1/8"=1'-0")
A
CENTERS OF CHAIRS
TYPICAL JURY BOX (SCALE 1/4"=1'-0")
KEY PLAN OF TYPICAL COURT ROOM FLOOR

Plan of Typical Court-Room and Auxiliary Rooms; Details of Jury-Box; New York County Court-House, New York City

Guy Lowell, Architect

NOTES

Plan of Typical Court-Room and Auxiliary Rooms; Details of Jury-Box; New York County Court-House, New York City.

GUY LOWELL, ARCHITECT

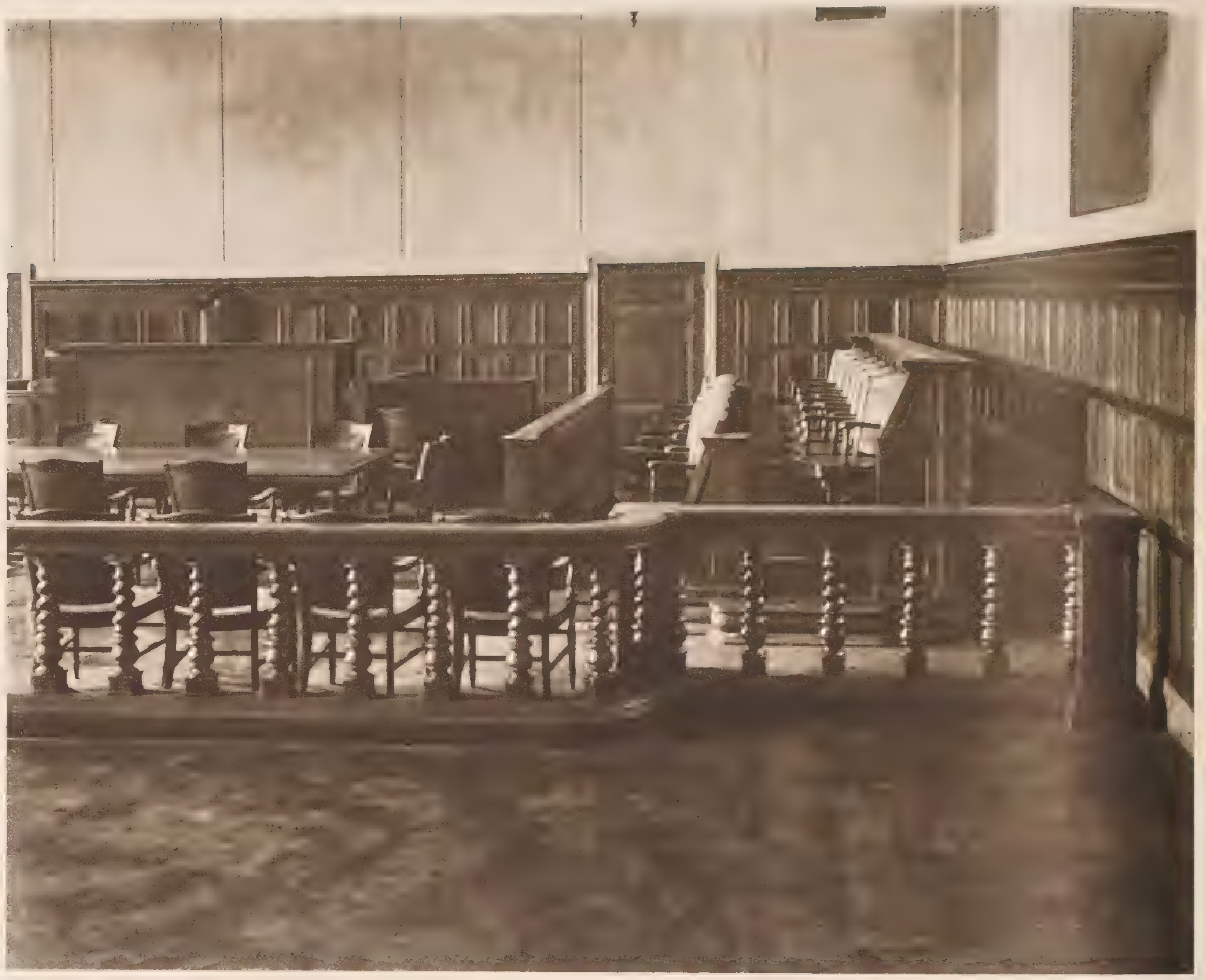
A number of excellent features were introduced which made the building more economical to build, with smaller cubical contents, yet with higher efficiency and better means of control. The use of a regular six-sided polygon instead of a rectangle obviously reduced the perimeter for the area enclosed, in accordance with the geometry theorem. The elevators were centrally located about the rotunda and connected by a circular corridor, from which radial corridors lead to two court-rooms each. In this way the long, circumferential corridors, having to pass each court-room as is usual with the long rectangular plan, were eliminated. The virtue of the radial corridor is not only that it arrives at the court-room door more directly than one which circumnavigates the building, but also in that it confines all public business of any one court-room to its particular corridor and thus insures perfect control.

Each court-room is a complete unit, provided with counsel-and-witness-room at one end, while at the other end, opposite to the public entrance to the room, are the justices' robing-room, and above it, accessible only by a private stair, the jury-room. The latter is directly above the robing-room, and, like it, is provided with toilet, coat-closets, etc. There is no access to the jury-room except by the special stair leading to it from the court-room, and any one attempting to reach the jury would have to pass the rail in the court-room and then the attendant at the door. In many court-houses the jury must be escorted over considerable distance before reaching their room, which even then is not private. At the public-entrance end of the court-rooms the counsel-and-witness-rooms are located, one on the level of the court-room and another directly above on a mezzanine, reached by a private stair.

The court-rooms have direct light coming from double tiers of windows on the outside walls and large windows in the upper half of the wall toward the light court. Projecting in the light court at the court-room floor level are communicating corridors or balconies for the justices, which are only a half floor in height, so as to allow for windows above them (see section). These narrow corridors are solely for the use of the justices and their attendants, and, being locked at the radial (public) corridors, are therefore inaccessible except for the purpose mentioned. It permits the justice to come and go without having to pass through the court-room before going to his robing-room, or to be noticed leaving if it is necessary for him to do so.

Public telephones are located on the radial corridors, where these join the rotunda corridor (see key-plan).

To sum up, the chief advantages and innovations in the plan are: the reduced corridors; each court-room is a distinct unit having its own counsel-and-witness-room, robing-room, jury-room, and private stairs leading thereto; the justices have a private corridor admitting them to and from their private chambers without passing through the court-room; all court-rooms obtain direct light from windows on an exterior wall as well as on a light-court, but are not disturbed by noise from another court-room as is the case where several rooms are on opposite sides of small light-courts.



Jury-Box and Justice's Bench, Typical Court-Room, New York County Court-House, New York City

GUY LOWELL, ARCHITECT

The photograph shows a jury-box similar to that shown in plan on page 257, but reversed, right to left. Details of the justice's bench were published in the preceding issue (April, 1928).

EDITORIAL COMMENT

❖ Vol. LVII, No. 5 ARCHITECTURE May, 1928 ❖

FOR THE HALL OF FAME

A YEAR ago we commented upon the fact that among the some sixty-five American immortals memorialized in the Hall of Fame there is not an architect. The painters and the sculptors are represented; literature, the law, statesmanship, invention, education, pioneering, the army, the navy, the pulpit, and engineering are represented, but the mother of all the arts has no son in the Hall of Fame. We said then, and we say again, that Charles Bulfinch, architect and statesman, is eminently qualified for this recognition. He will be elected only if the architectural profession throws the full weight of its influence behind his name. The next election occurs in 1930. It is not too early to prepare for it. The subject is ripe for discussion at the forthcoming convention of the Institute.

> *Make no little plans. They have no magic to stir man's blood, and probably themselves will never be realized. Make big plans, aim high, remembering that a noble, logical design once recorded will never die.*
>
> Daniel H. Burnham.

BILLIONS IN BUILDING

THERE are some very interesting figures, for those who can think in terms of millions and billions, in statistics recently compiled by the Copper and Brass Research Association. According to these figures, buildings in the United States to-day have a total value of $180,370,000,000. Construction in these days reaches a yearly total of some ten billions, this figure including both new building and the repairs and maintenance of existing structures.

The total value may be divided as follows:

CLASS	PER CENT	AMOUNT
Commercial	16.2	$29,220,000,000
Hospitals	2.9	5,230,000,000
Hotels	5.1	9,200,000,000
Housings	51.1	92,170,000,000
Industrial	6.8	12,260,000,000
Public	2.9	5,230,000,000
Recreational	5.4	9,740,000,000
Religious	2.7	4,870,000,000
Schools	6.9	12,450,000,000
Totals	100.0	$180,370,000,000

It would appear that the repairs and maintenance charges on our national plant are about 2.6 per cent annually, while additions to it are about 3.3 per cent. Assuming that we have a population increase of about 1.3 per cent, requiring that much additional shelter, the difference of 2 per cent may be taken to represent the achievement of a higher standard of living in so far as it affects our building.

A separation of the expenditures for new work and for repairs among the various classifications listed above discloses the fact that two classes, namely, hospitals (including institutional buildings) and schools (including libraries, etc.), require more for repairs and maintenance than for new construction. This, of course, might be expected when one considers that replacement is not so frequent as in housing or commercial structures. We build better hospitals and schools to begin with, and our losses by fire and obsolescence are correspondingly less. The surprising fact is that public buildings do not also fall into this group, yet the ratio here of new work to repairs and maintenance is as 17 is to 10.

THE RENT DOLLAR

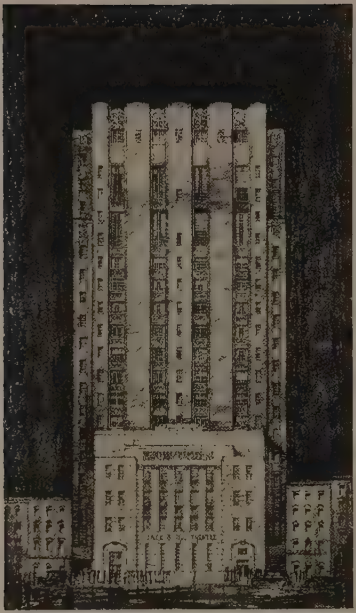
OUT in Omaha the managers of the city's office-buildings decided to pool their experience and knowledge, adopted uniform accounting methods, and laid their cards on the table for the inspection of the tenants. Among other disclosures, they show us where the rent dollar goes:

Taxes	$0.14
Insurance	.02
Cleaning	.10
Heating	.075
Elevator Service	.05
Decorating and Alterations	.075
Public Lighting	.02
Miscellaneous Services	.05
Depreciation and Obsolescence	.10
Interest, which in the average building will yield 5½ per cent net on the investment	.37
	$1.00

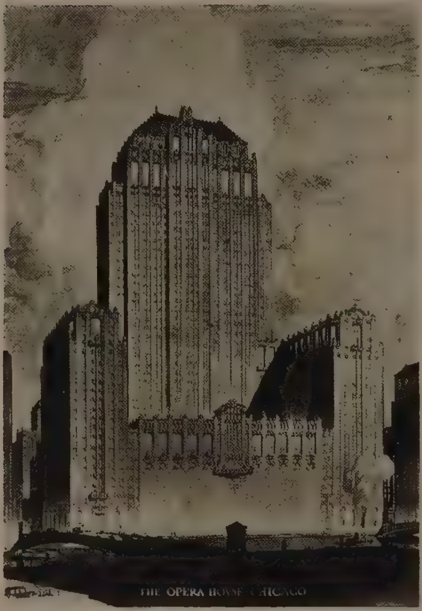
SIR EDWIN VIEWS WITH ALARM

SIR EDWIN LUTYENS, if correctly reported, says that "Americans are not good builders. They build for the hour, with no eye at all for the future. . . . The way the Americans treat their ironwork is that they just give it a coat of paint, or one of mud and water. That's where the danger chiefly lies. Such methods give ironwork little or no protection from atmospheric penetration."

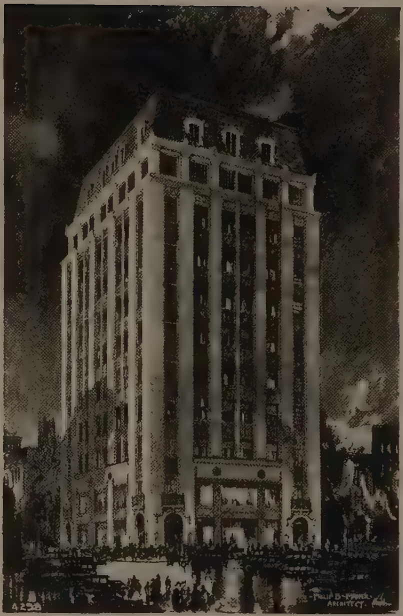
Perhaps Sir Edwin is right, though the facts on which he bases his observations have not come to our attention. If, however, we do undertake to do more than coat our structural steel with paint and waterproof cement behind the curtain wall of masonry that bears the real brunt of the weather, how shall we ever contrive to take these buildings down when their thirty-five years' average expectation of life is past?



An "intimate theatre" seating 500, combined with apartments, Chicago. Edwin D. Krenn and Herbert B. Beidler, Architects

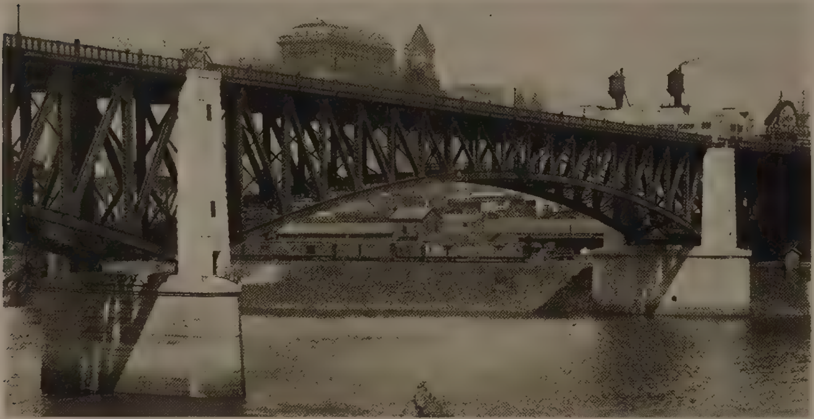


Graham, Anderson, Probst & White's design for the Chicago Civic Opera, to be located on Wacker Drive

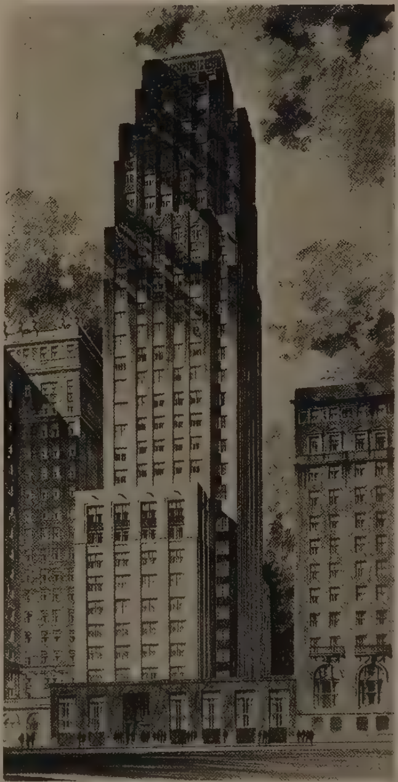


Farwell Building, Chicago; Philip B. Maher, Architect; awarded gold medal of the Chicago Chapter A. I. A., and Illinois Society of Architects

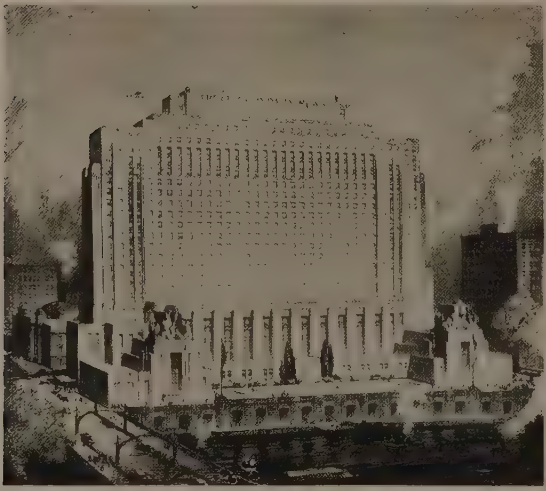
Architectural News



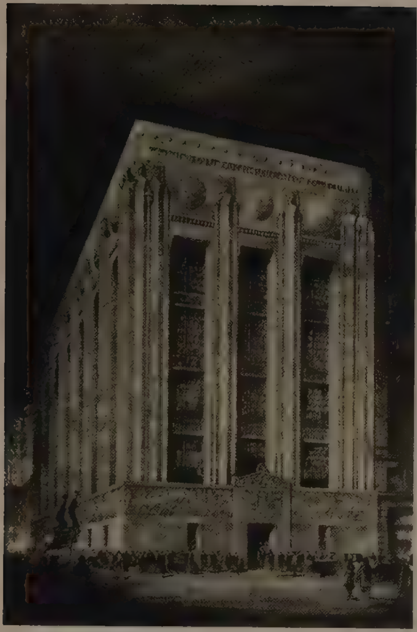
The new Liberty Bridge, Pittsburgh. S. L. Roush, County Architect. Photograph by courtesy of "The Sun-Telegraph"



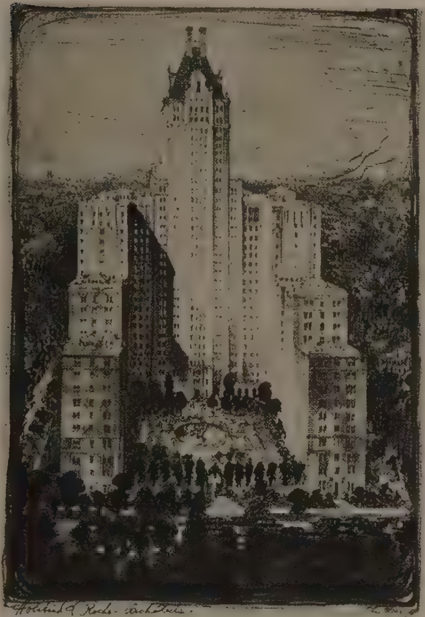
The Drake Tower, lake-shore apartment-hotel for Chicago. Benjamin H. Marshall, Architect



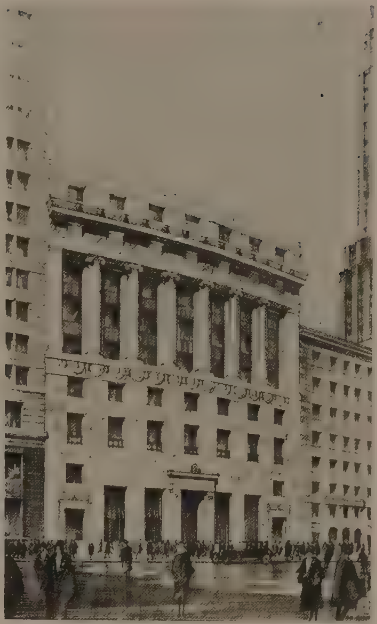
"The Chicago Daily News" is starting to build its building over the tracks of the C. M. & S. P. Railroad. Holabird & Roche, Architects. Drawing by Chester B. Price



The winning design for San Francisco's Stock Exchange. J. R. Miller and T. L. Pflueger, Architects. Drawing by Hugh Ferris

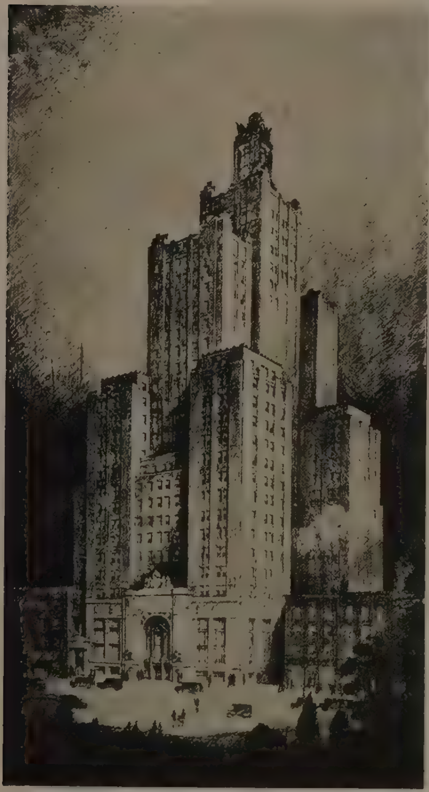


Sheridan Towers Apartments, to be, as we go to press, Chicago's tallest and largest apartment project. Holabird & Roche, Architects

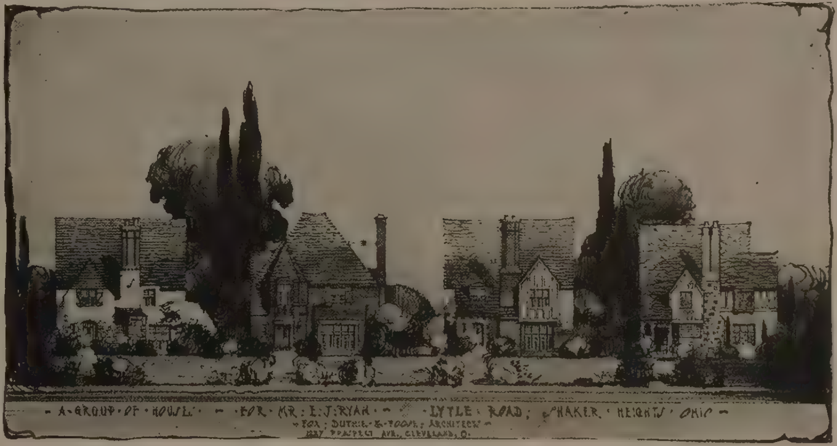


Lee, Higginson & Co.'s new banking-house on Broad Street, New York City. Cross & Cross, Architects

in Photographs

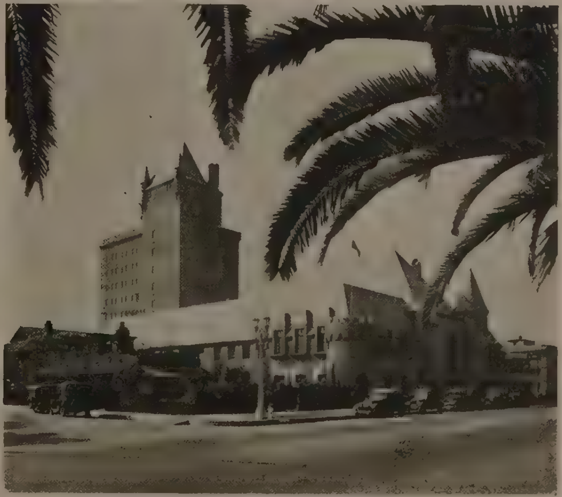


Proposed Industrial Trust Building, Providence. Walker & Gillette, Architects; George F. Hall, Associate Architect



A·GROUP·OF·HOUSES — FOR·MR·E·J·RYAN — LYTLE·ROAD; SHAKER·HEIGHTS·OHIO —
FOX; DUTHIE & FOOSE; ARCHITECTS
1327 PROSPECT AVE., CLEVELAND, O.

Some new houses being built in Shaker Heights Village, a suburb of Cleveland. Fox, Duthie & Foose, Architects



The Pacific Coast Club, recently completed at Long Beach, Calif. Curlett & Beelman, Architects

BOOK REVIEWS

TOWARDS A NEW ARCHITECTURE. By Le Corbusier. Translated from the thirteenth French edition, with an introduction, by Frederick Etchells. 289 pages, 7¼ by 9¾ inches; profusely illustrated with drawings and photographs. Printed in Great Britain. New York: 1927: Payson & Clarke, Ltd. $5.

One of the outstanding French modernists advances his plea for an architecture that will be as true a reflection of our age as is the automobile, the airplane, the grain-elevator. Like so many of the modernistic protagonists, Le Corbusier's reasoning is more acceptable than is his interpretation of this reasoning in his architectural design. Nevertheless, out of our present crude gropings something of good must surely evolve.

MODERNE ARCHITECTUUR. By Professor J. G. Wattjes. 160 pages, 9 by 12 inches; 346 illustrations from photographs, and plans. Amsterdam: 1927: Uitgevers-Maatschappij "Kosmos." 14 gulden 50 cent.

Professor Wattjes, who is author of "Niew-Nederlandsche Bouwkunst," here presents his selection of modern architecture from Norway, Sweden, Finland, Denmark, Czecho-Slovakia, Austria, France, Belgium, England, and North America. For the most part an interesting selection of the work that breaks away from precedent, though his choice of some of our own adaptations from the English cottage types seems out of line. Aside from these, our American work and that of Sweden seem the most free from an unrestrained groping after effect.

ARCHITECTURE. By A. L. N. Russell, A. R. I. B. A. 266 pages, 5½ by 7¾ inches. Illustrated with plans, detail drawings, and photographs. Printed in Great Britain. New York: 1927: E. P. Dutton & Co. $3.

A short analysis, written primarily for the layman. It is written from the view-point of the present, including among its examples such modern creations as the Einstein Tower at Potsdam.

OLD PLANTATION HOUSES IN LOUISIANA. By William P. Spratling. Text by Natalie Scott. With a Preface by N. C. Curtis. 162 pages, 7 by 9¾ inches. Illustrated with pen drawings by Mr. Spratling. New York: 1927: William Helburn, Inc. $5.

An impressionistic and romantic treatment of Louisiana's old plantation houses, which could perhaps be shown in no better way. Mr. Spratling's bold black-and-whites are well known to our readers. In his characteristic style he captures much of the melancholy dignity of these mansions, now so rapidly becoming mere ghosts of a glorious past.

THE GEOGRAPHY OF AMERICAN ANTIQUES. By Lurelle Van Arsdale Guild. 283 pages, 7¾ by 9¾ inches. Illustrated with pen-and-ink drawings by the author. Garden City: 1927: Doubleday, Page & Co. $4 net.

The title is well chosen. Geographical and varied racial influences were most important factors in our early craftsmanship. How these were absorbed and fused is not only interesting in itself but of real assistance in helping one to "know" antiques.

GARDENS AND DESIGN. By F. C. Shepherd, A. R. I. B. A., and G. A. Jellicoe, A. R. I. B. A. 248 pages, 10 by 13½ inches. Profusely illustrated from drawings and photographs. Printed in Great Britain. New York: 1927: Charles Scribner's Sons. $20.

A broad view of the art of gardening—its part in the life and needs of mankind, its development among various peoples and in various periods, the effects of climate, social needs, local materials. The illustrations are large, beautifully printed, taken for the most part from excellent photographs of the great gardens of the world.

LITTLE-KNOWN TOWNS OF SPAIN. By Vernon Howe Bailey. 67 plates, 10 by 12¾ inches, from drawings in water-color, pencil, and crayon. With a Foreword by the author. Bound in heavy paper. Printed in France. New York: 1927: William Helburn, Inc. $15.

A process of reproduction, new to America, has been employed to give what seems to be a fairly accurate facsimile of the originals on a rough-textured water-color paper. Mr. Bailey complains that Spain, to the average tourist, has come to mean but eight or ten of the larger cities. He brings to our eyes another Spain—that of the provincial capitals and lesser towns, many remote, far off the railways. These form the subjects for his quick brush and his more painstaking crayon.

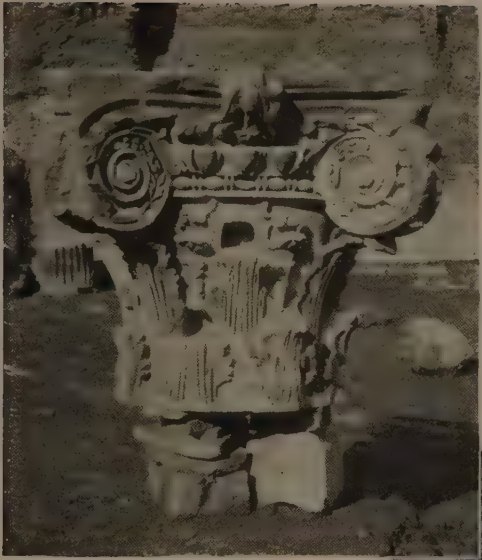
WINNING DESIGNS, 1904–1927, PARIS PRIZE IN ARCHITECTURE: LLOYD WARREN MEMORIAL. With an Introduction by John F. Harbeson. 35 plates, 10 by 15 inches, reproduced by the aquatone process, in a portfolio. New York: 1928: The Pencil Points Press, Inc. $6.

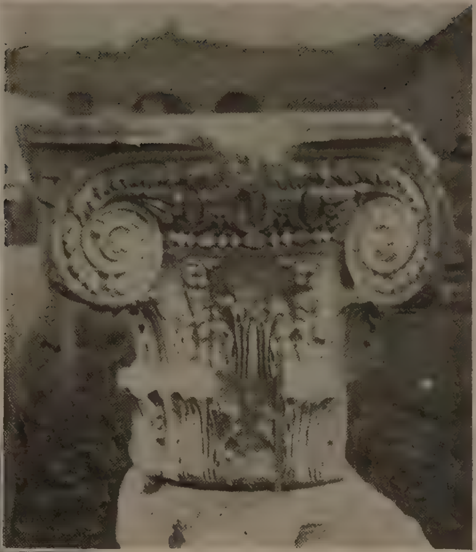
Here is a splendidly presented record of the first twenty winners of the Paris Prize—the most keenly sought of all goals in American architectural education. Like Mr. Harbeson's "The Study of Architectural Design," by the same publishers, this should prove to be one of the indispensable documents for the steadily growing army of students following the Beaux-Arts road to proficiency in architectural design.

DECORATION IN ENGLAND, FROM 1640 TO 1760. By Francis Lenygon. Second Edition—Revised. 276 pages, 10½ by 14 inches, with additional plates in gelatine process. Profusely illustrated from drawings and photographs. Printed in Great Britain. New York: 1927: Charles Scribner's Sons. $20 net.

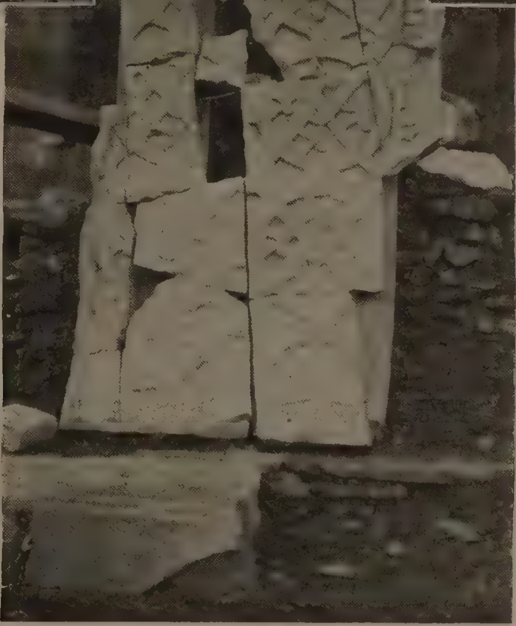
This is Volume II of the four standard volumes of "The Library of Decorative Art," forming a continuous series which treats of English decoration and furniture during the three centuries from 1500 to 1820. Vol. I by M. Jourdain treats of English Decoration and Furniture during the Tudor, Elizabethan, and Early Stuart Periods (1500–1650). Vol. III, also by Mr. Lenygon, treats of Furniture in England from 1660 to 1760. Vol. IV, by M. Jourdain, treats of English Decoration and Furniture of the Later 18th and Early 19th Centuries (1760–1820).

To quote *The Illustrated London News:* "The whole four volumes form a magnificent record, both in the literary and pictorial side of this most fascinating branch of craftsmanship, and will take their place as a standard work in the library of every connoisseur."



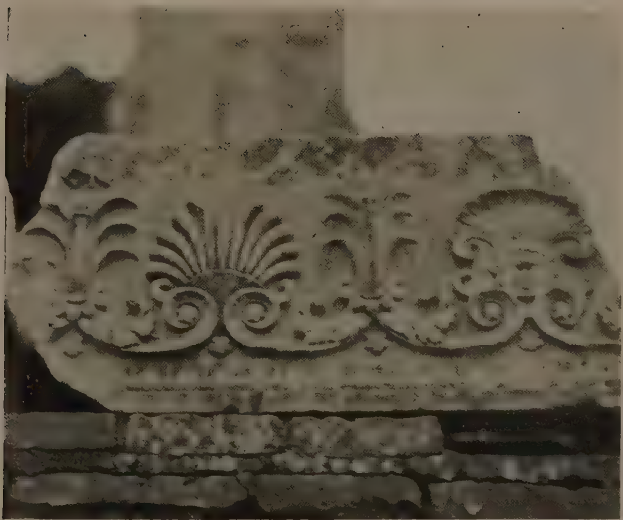


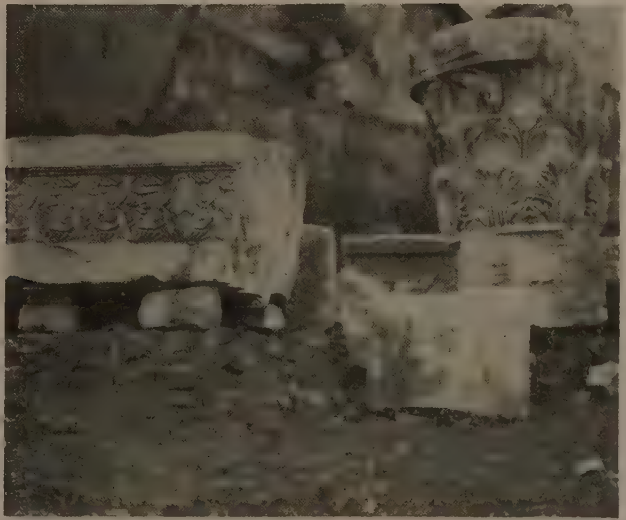
FRAGMENTS FROM THE ROMAN FORUM

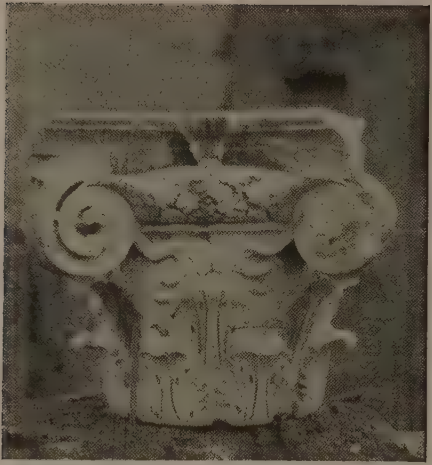


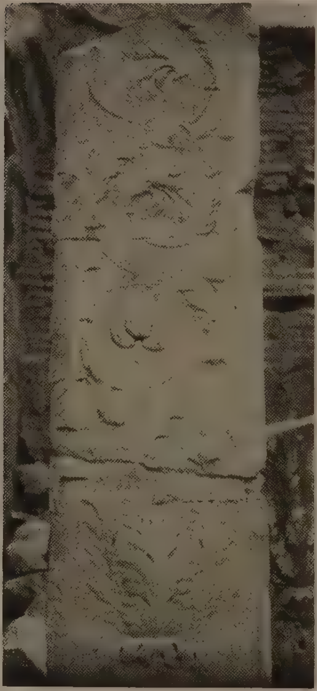
FROM PHOTOGRAPHS
BY A. R. EASTMAN

PLYM FELLOWSHIP, 1926-27
UNIVERSITY OF ILLINOIS

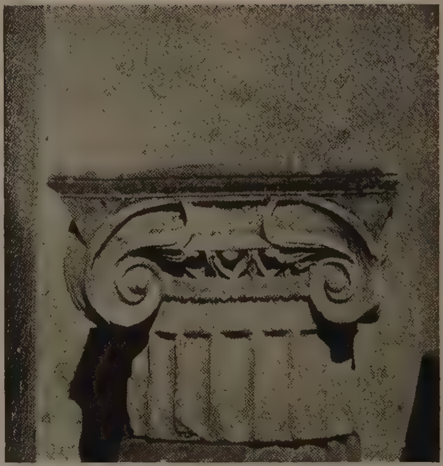




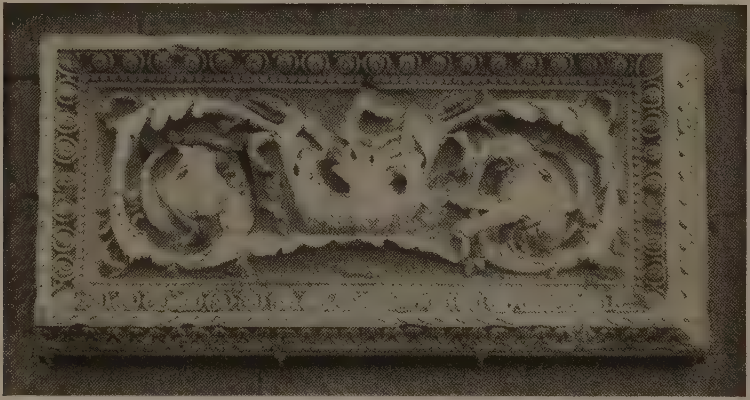




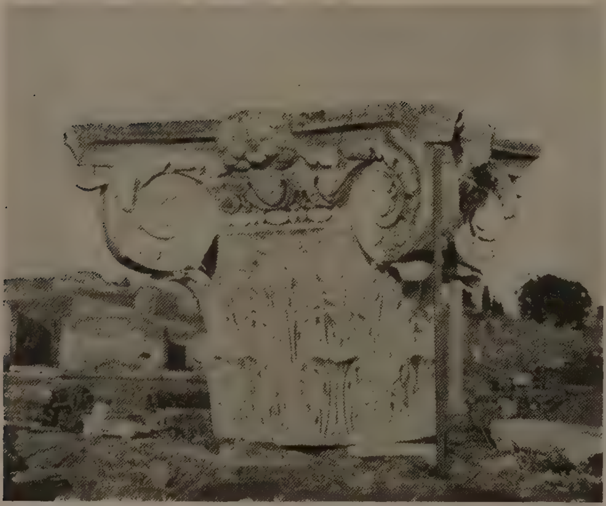
Above. Capital in the Stadium on the Palatine. Panel at right is on the site of the Basilica Amelia, Rome



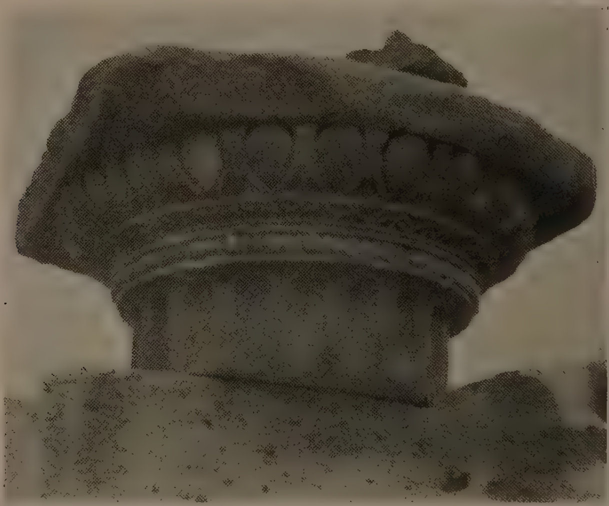
The above capital is in a Pompeian house. Panel below in the Roman Forum

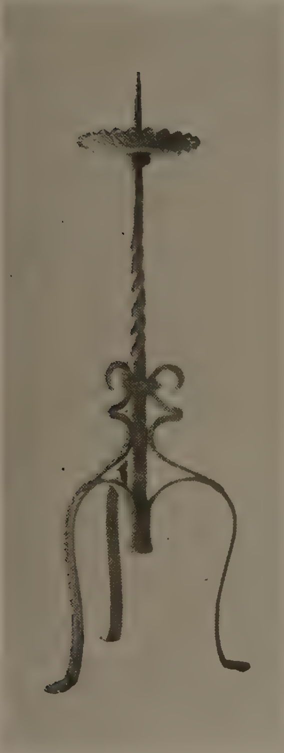


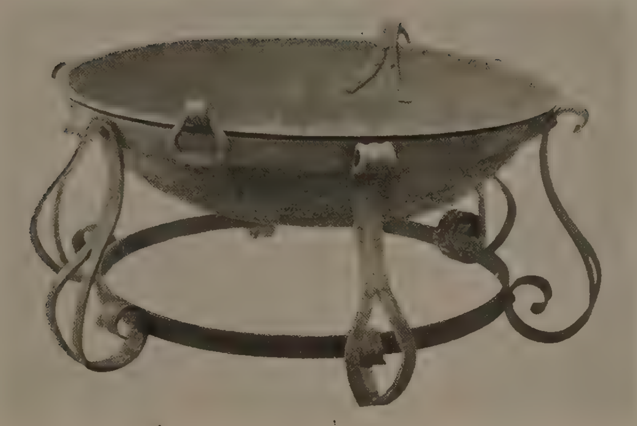
Capital on site of the ancient theatre in Ostia

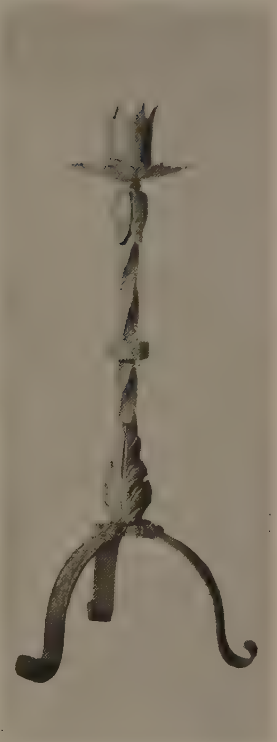


Capital on site of the Regia in the Roman Forum



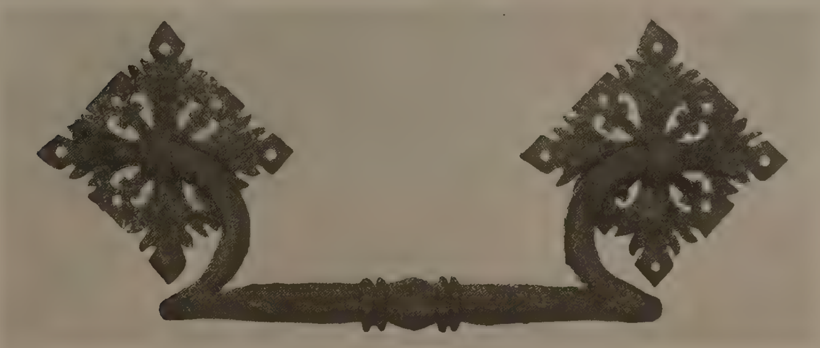


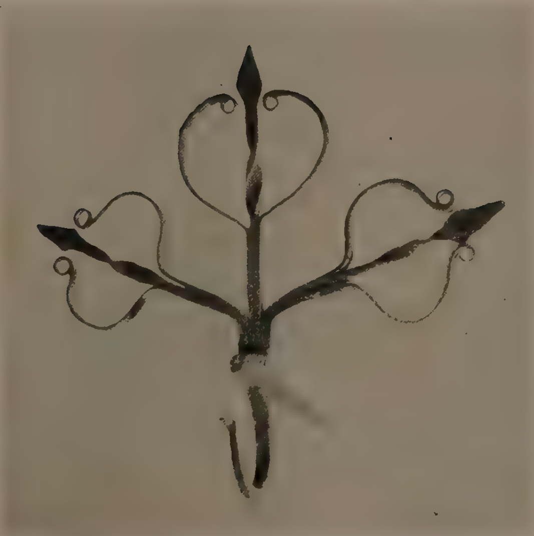


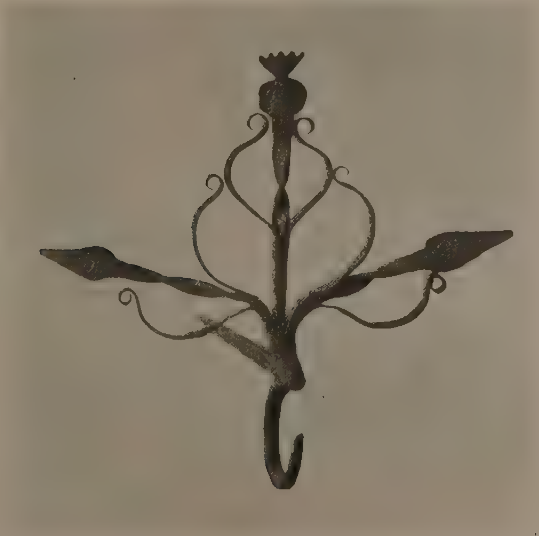


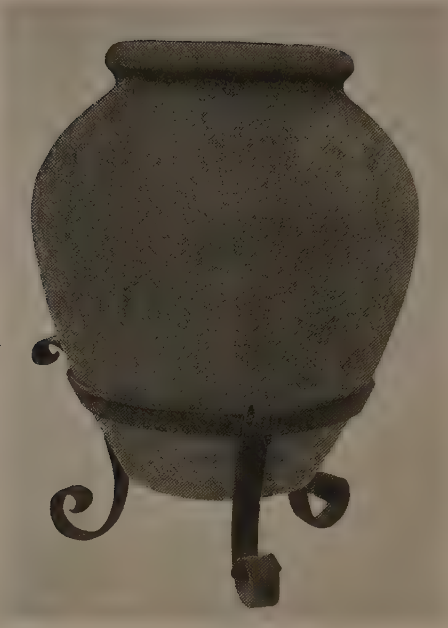
Wrought-Iron Accessories

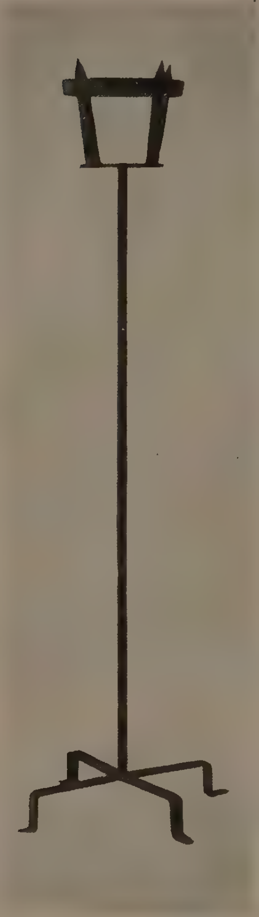
DESIGNED AND EXECUTED UNDER THE DIRECTION OF
ADDISON MIZNER
ARCHITECT

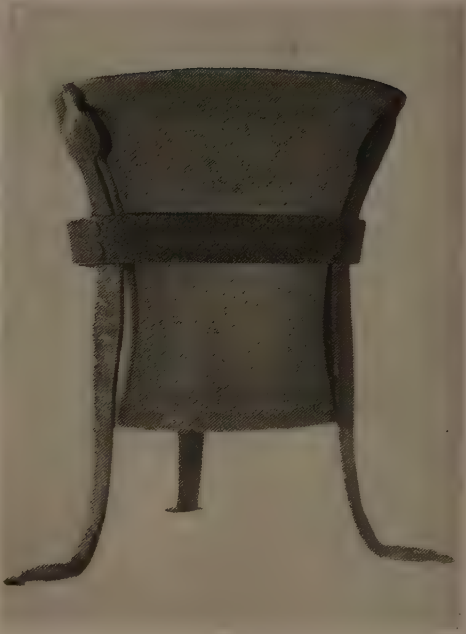












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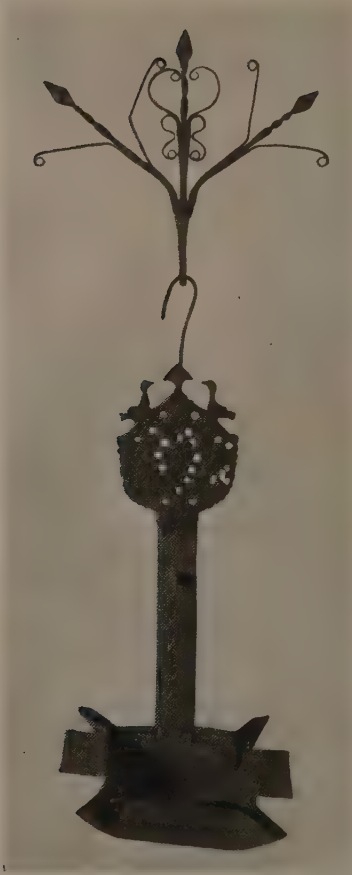

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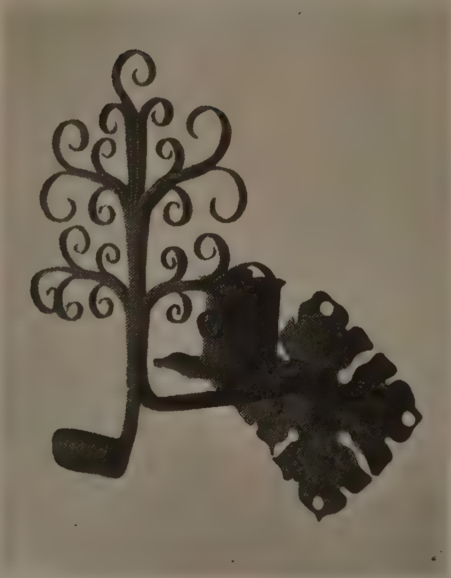
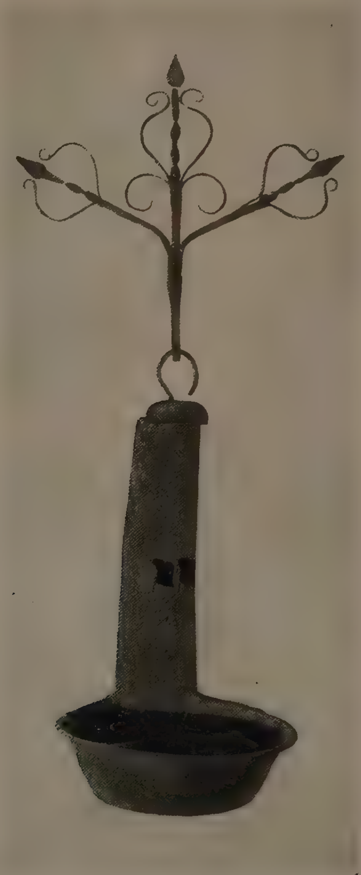
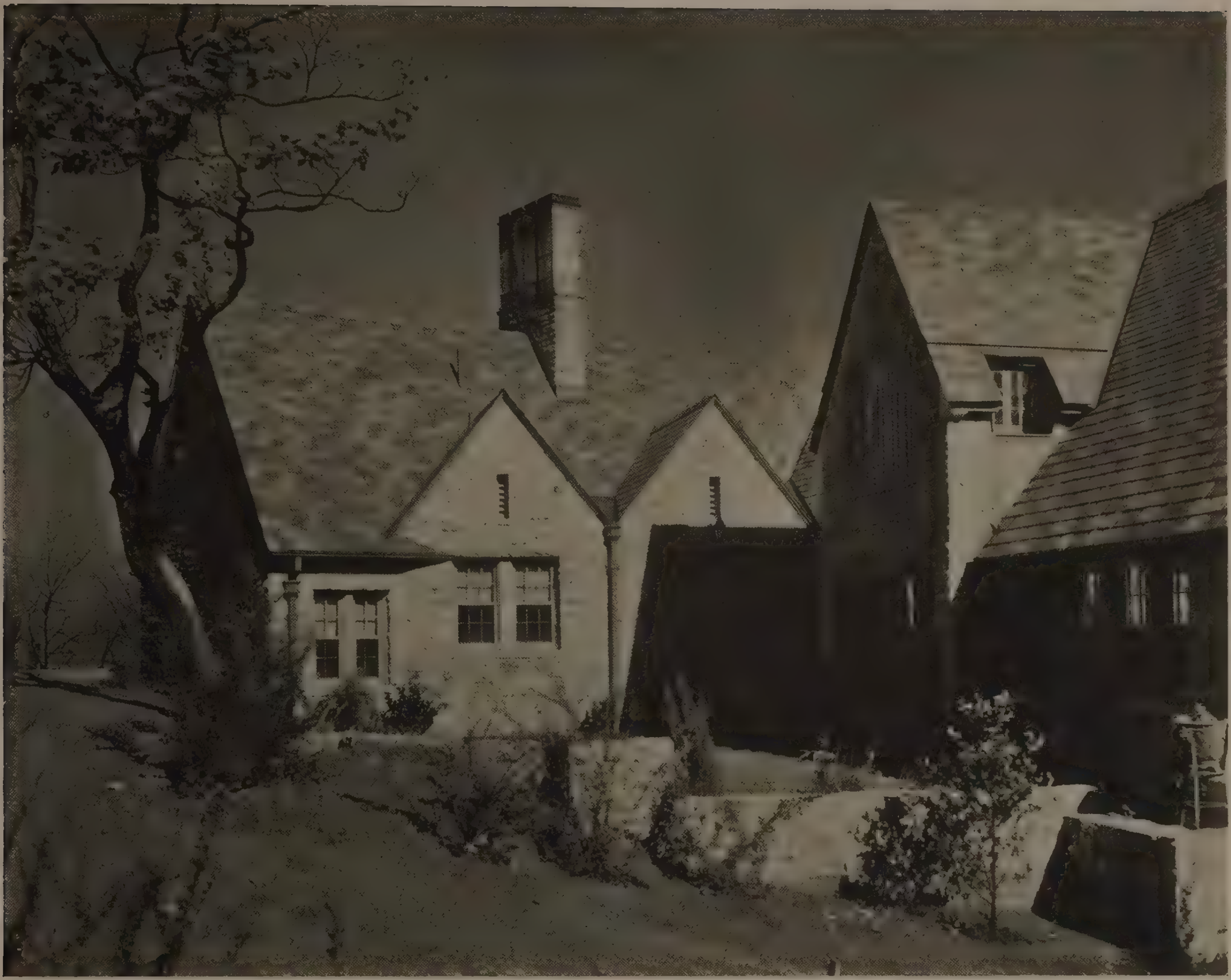
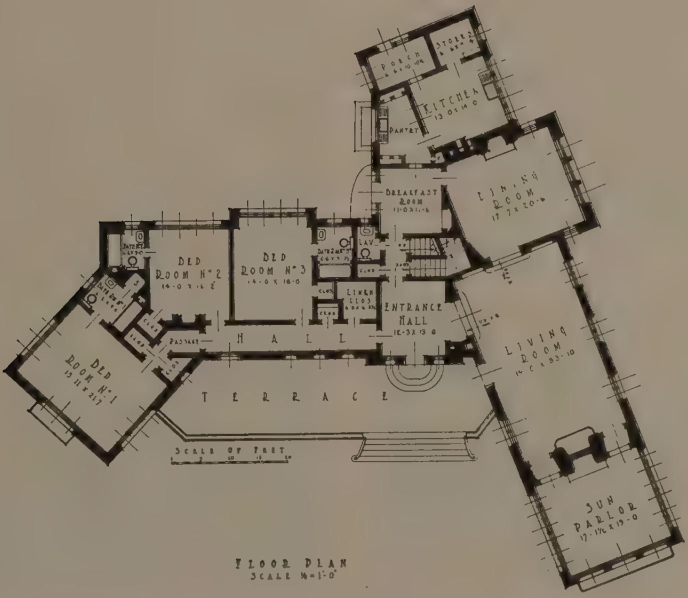




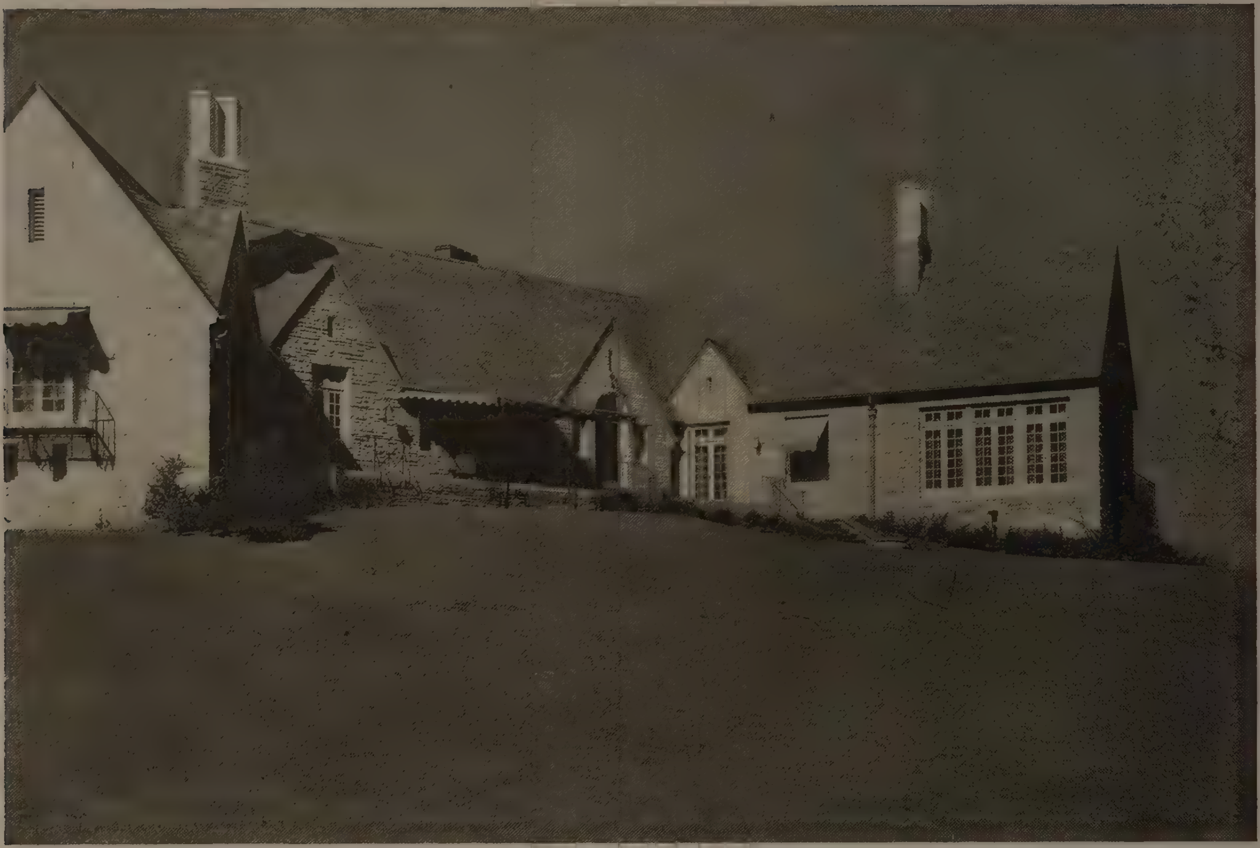


A corner off the breakfast-room



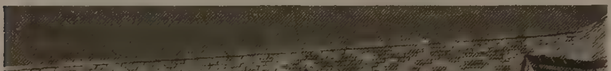
HOUSE OF
CHARLES F.
DEBARDELEBEN,
BIRMINGHAM,
ALA.

WARREN,
KNIGHT &
DAVIS,
ARCHITECTS

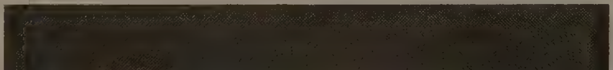


The terrace front

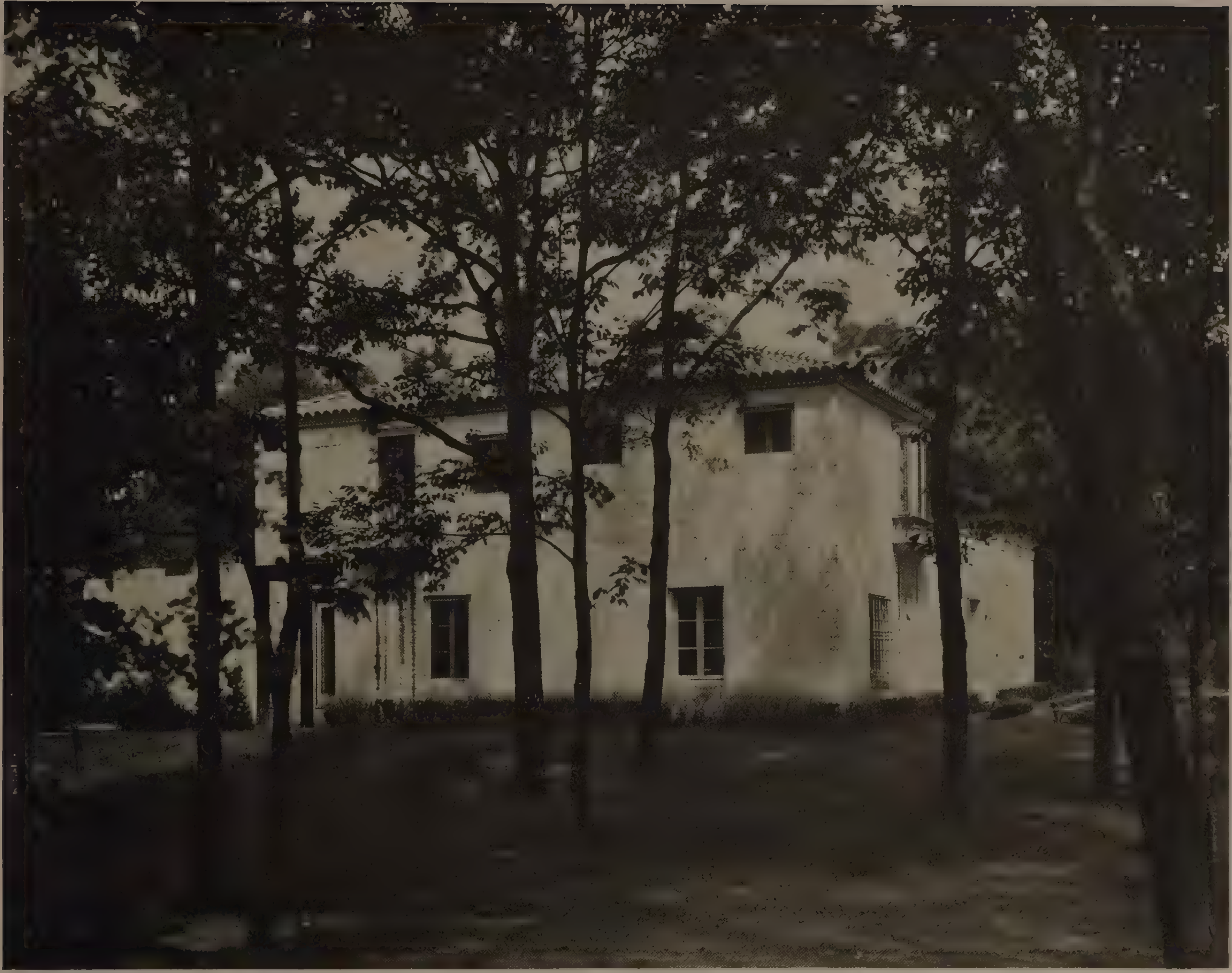
Entrance detail



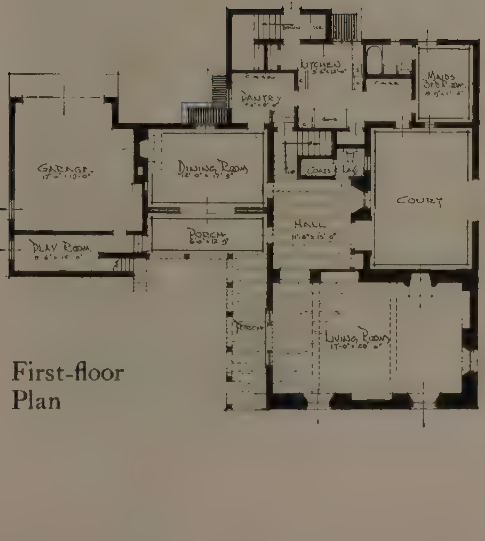
Servants' house



House of Charles F. DeBardeleben, Birmingham, Ala. warren, knight & davis, architects



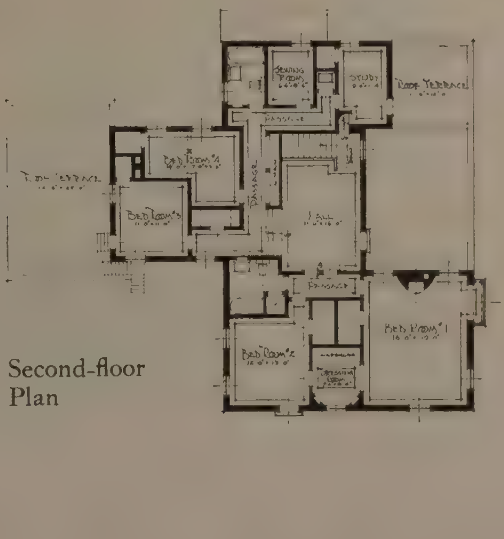
The owner had lived in Spain for a time and wanted a Spanish house. Stone was out of the question on account of cost, and the architect preferred to avoid plaster, so utilized concrete blocks. These were made by buttering the inside of the forms with a half-inch layer of white water-proof cement mortar before casting. The exterior was whitewashed in accordance with United States Navy specifications. Inside, the walls are furred; the floors mastic.



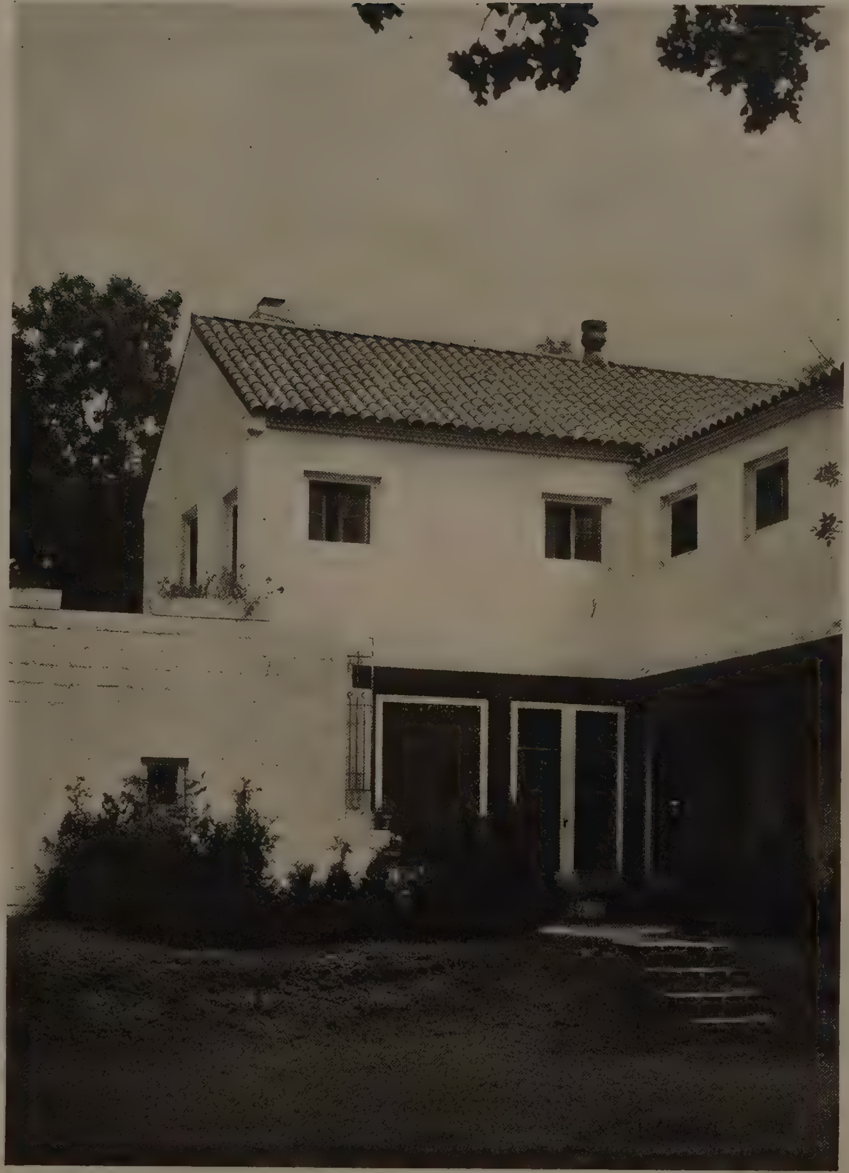
First-floor
Plan

House of
Mellen C.
Martin,
Chicago, Ill.

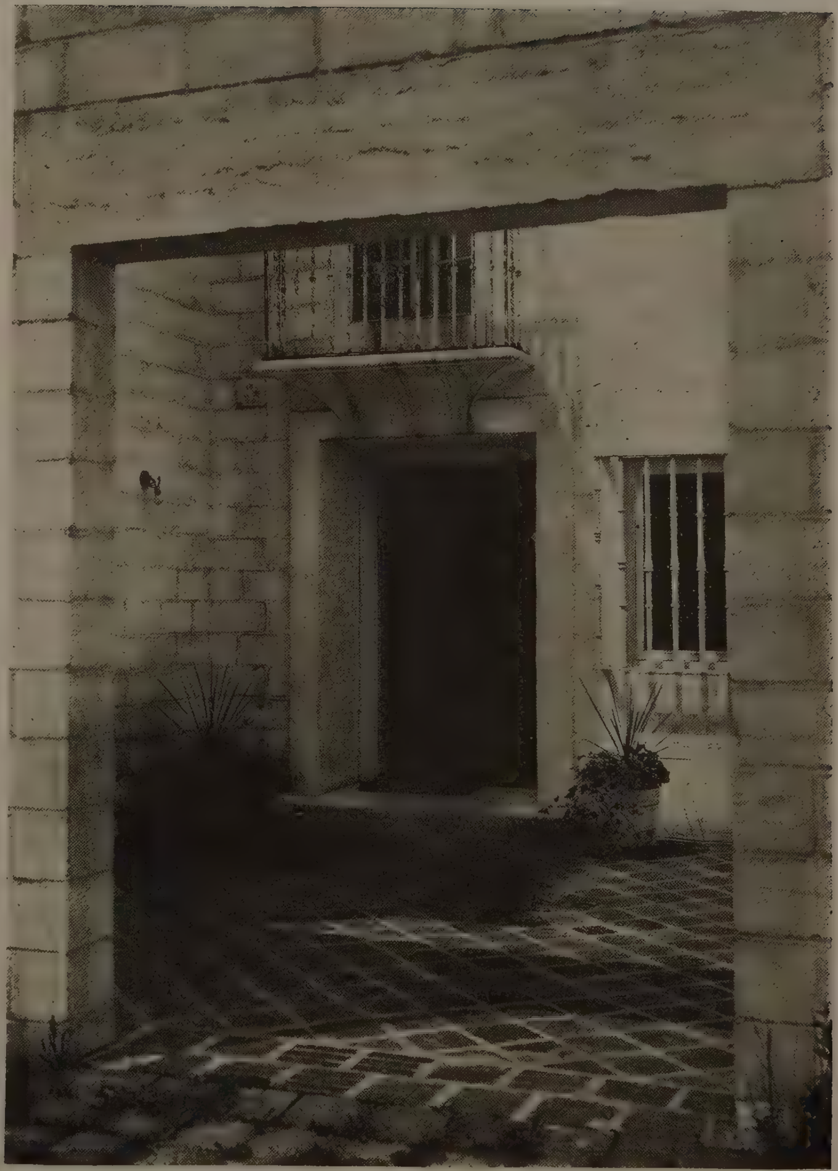
RUSSELL M. WALCOTT,
ARCHITECT



Second-floor
Plan

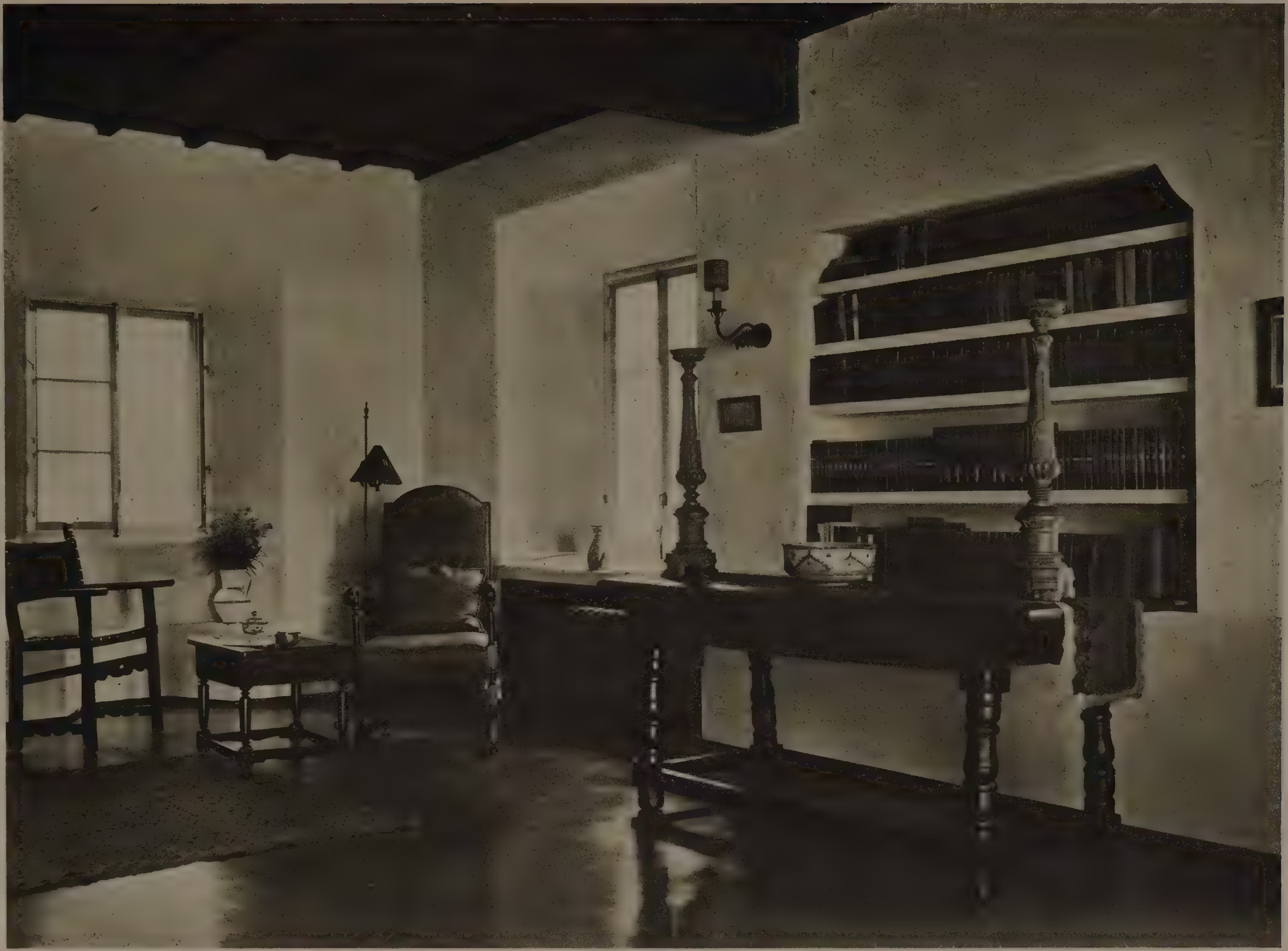


The corner porch



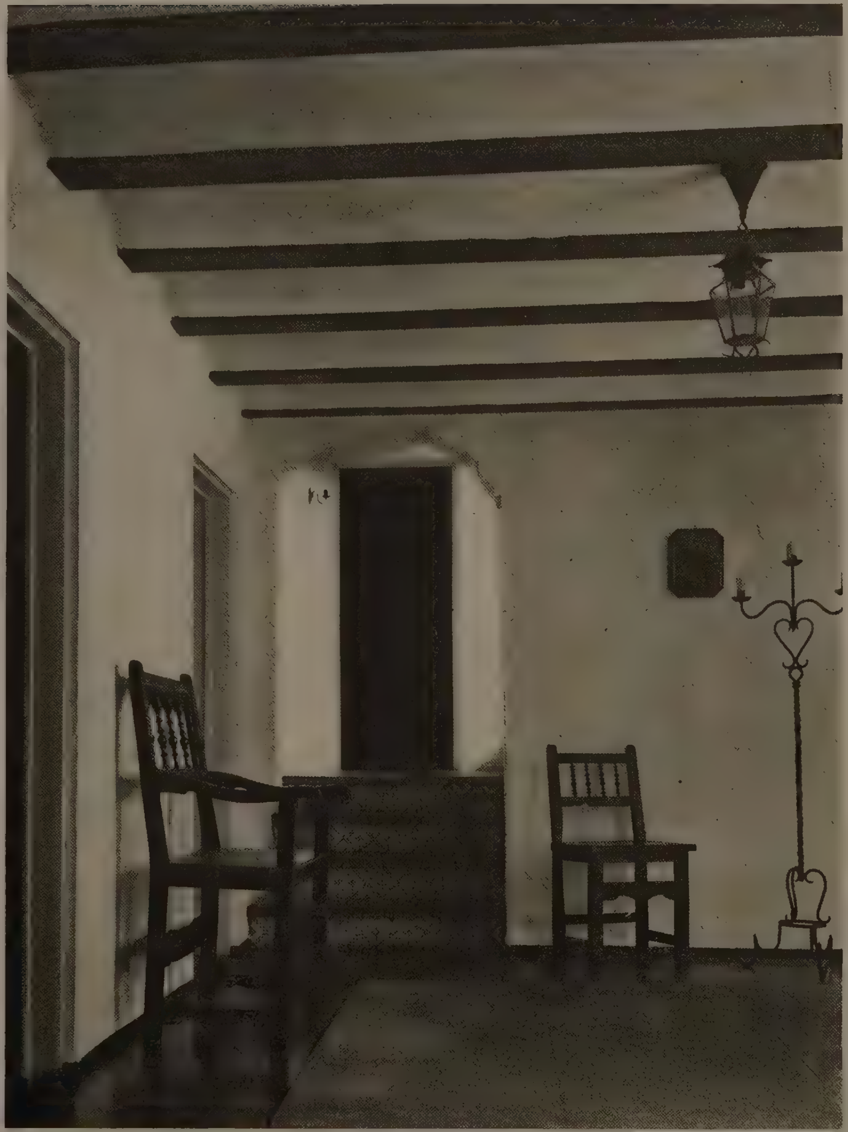
Looking into the court

House of Mellen C. Martin, Chicago, Ill. russell m. walcott, architect

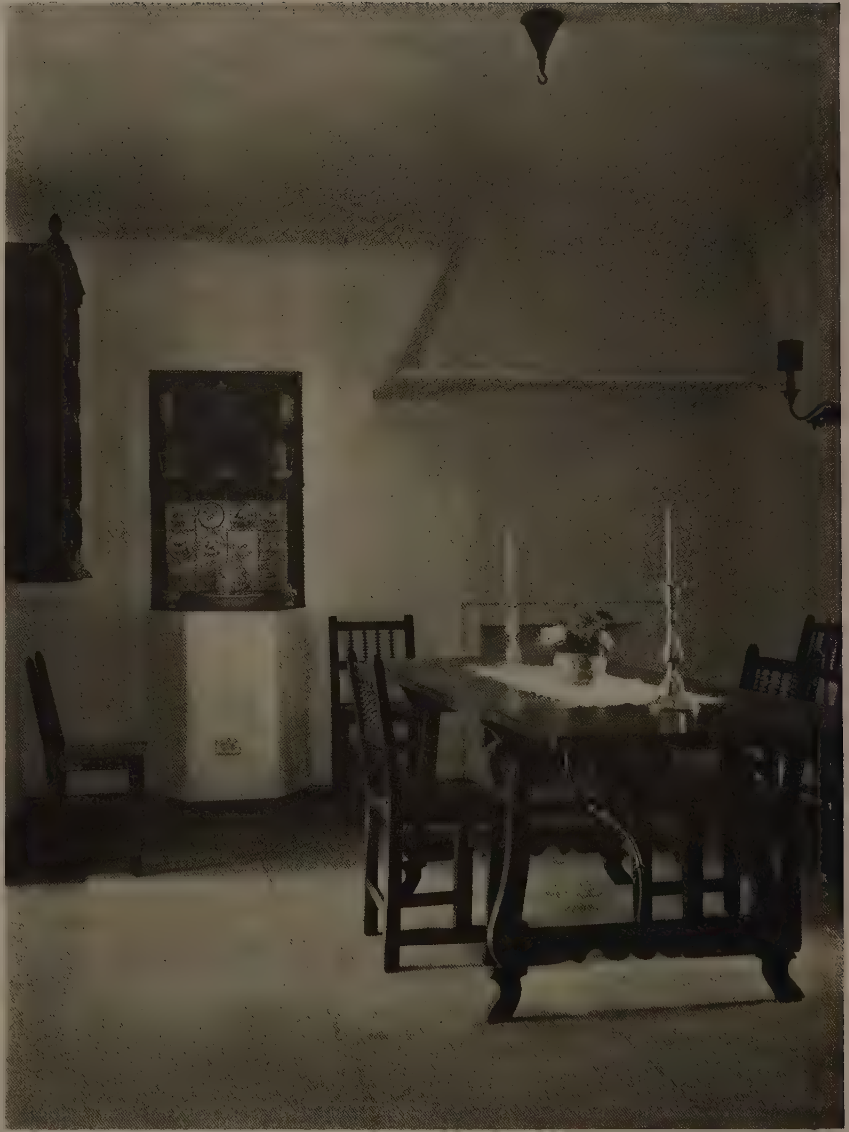


The living-room

House of Mellen C. Martin, Chicago, Ill. RUSSELL M. WALCOTT, ARCHITECT

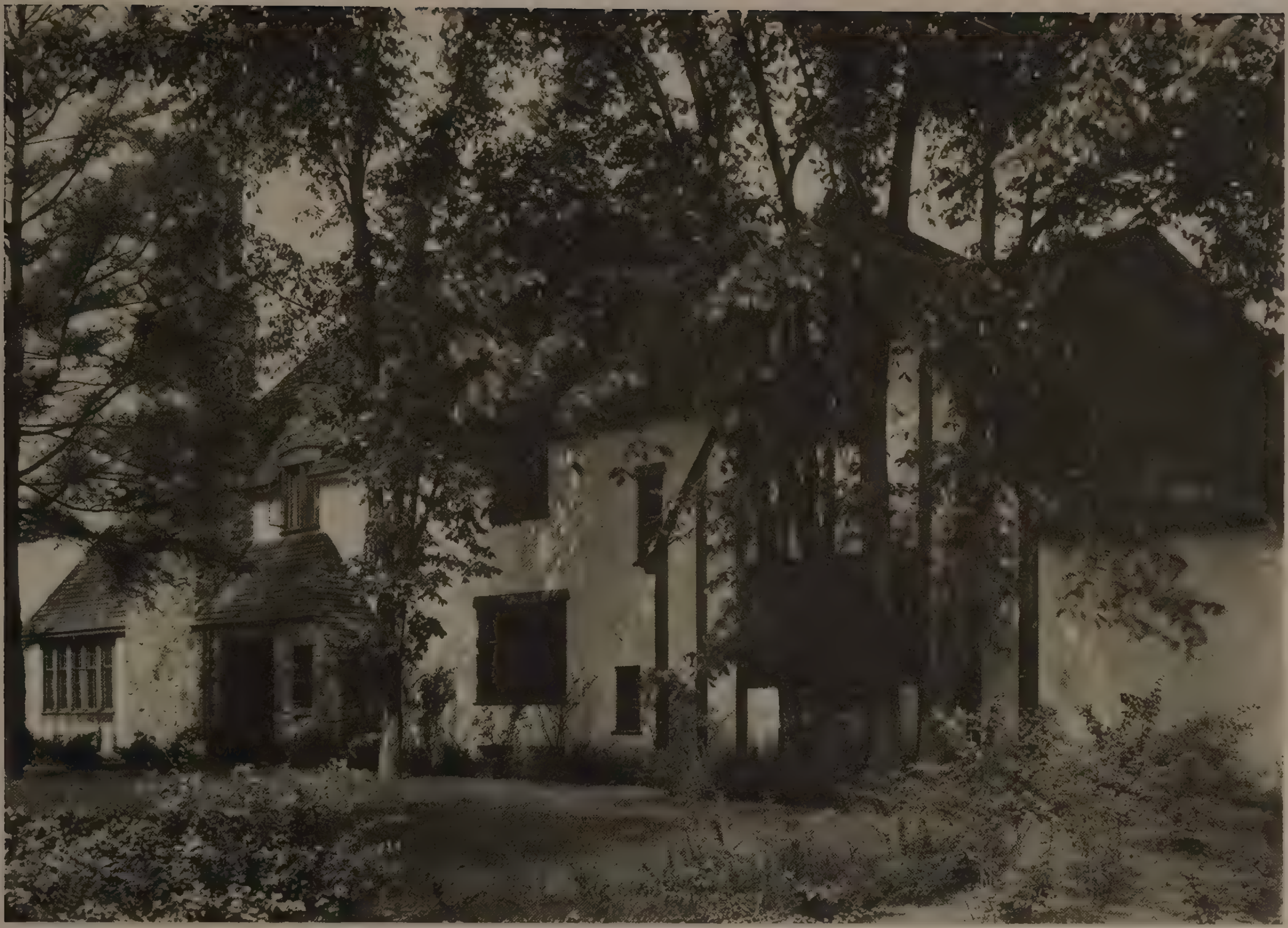


The hall and stairway



A corner of the dining-room

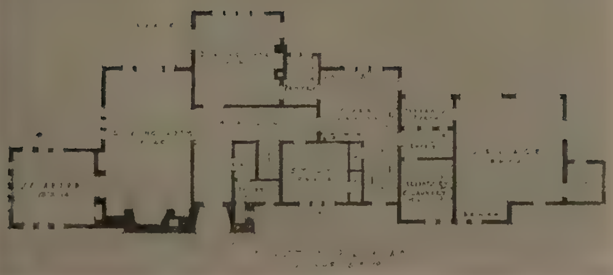
House of Mellen C. Martin, Chicago, Ill. russell m. walcott, architect

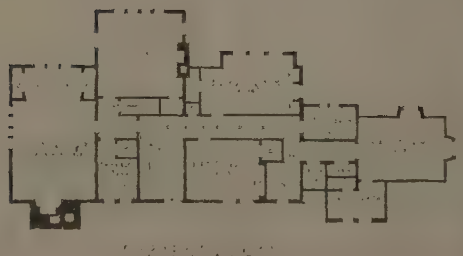


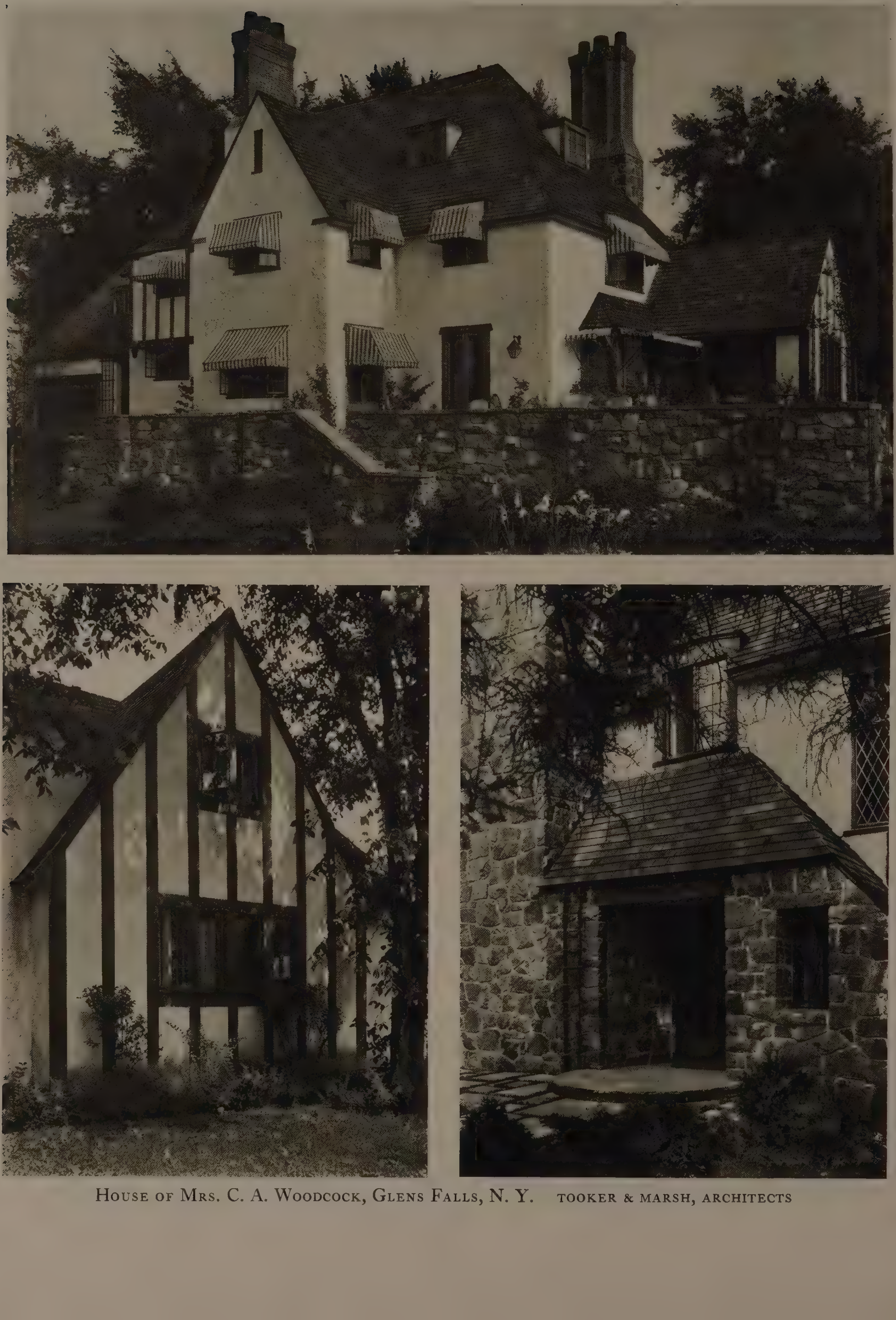
The entrance front

House of Mrs. C. A. Woodcock,
Glens Falls, N. Y.

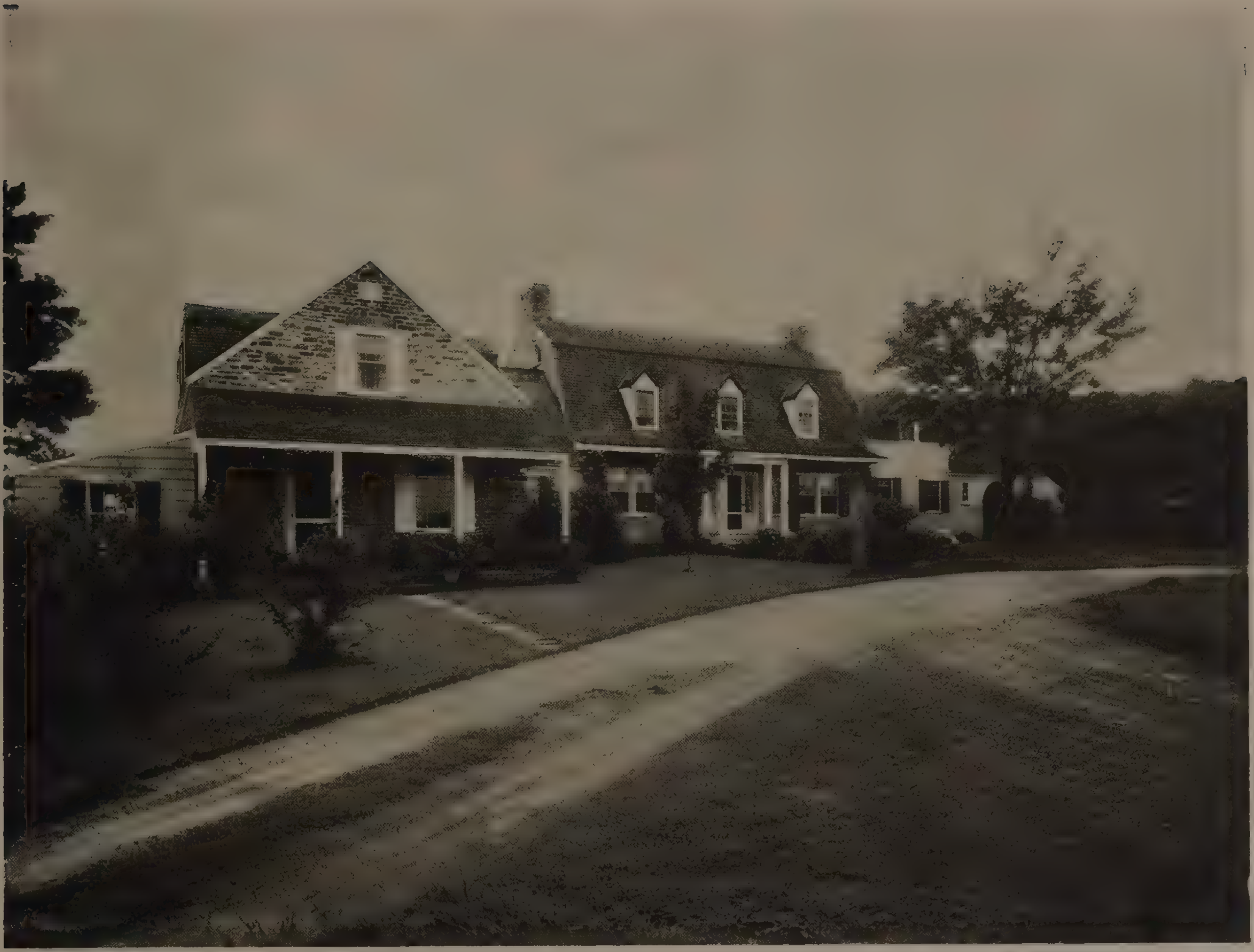
TOOKER & MARSH, ARCHITECTS







House of Mrs. C. A. Woodcock, Glens Falls, N. Y. TOOKER & MARSH, ARCHITECTS

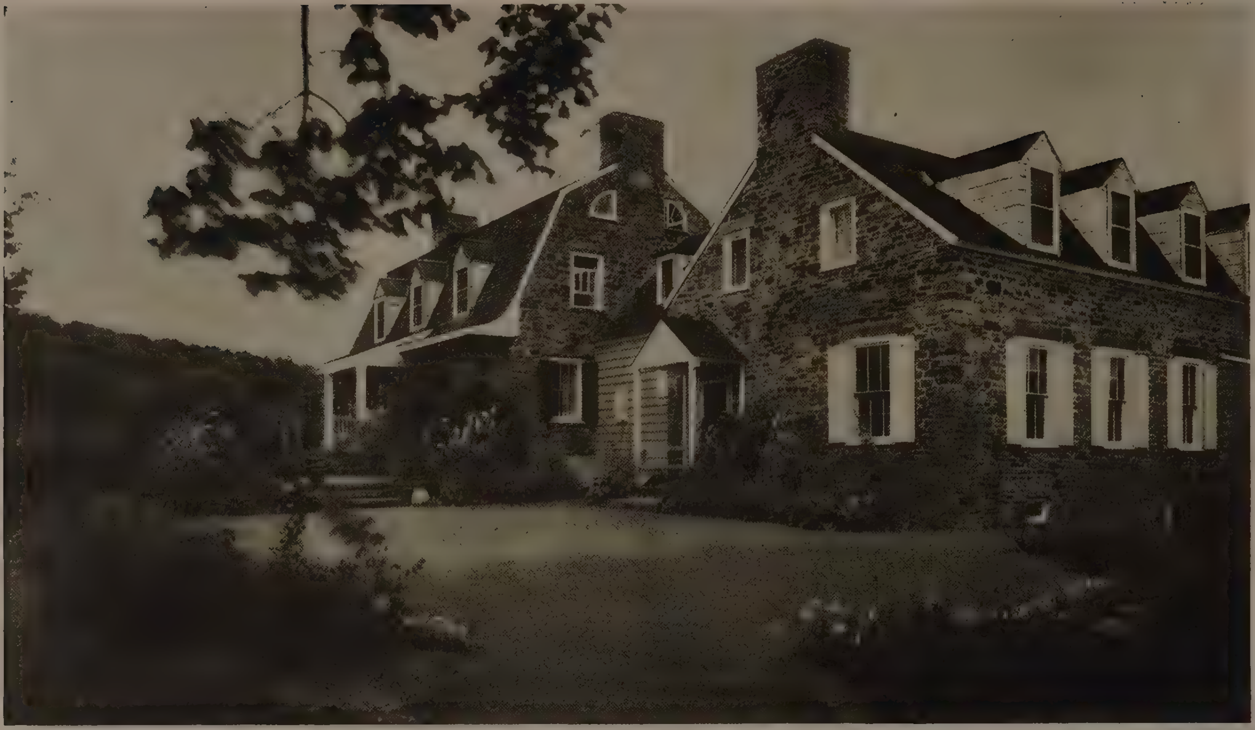


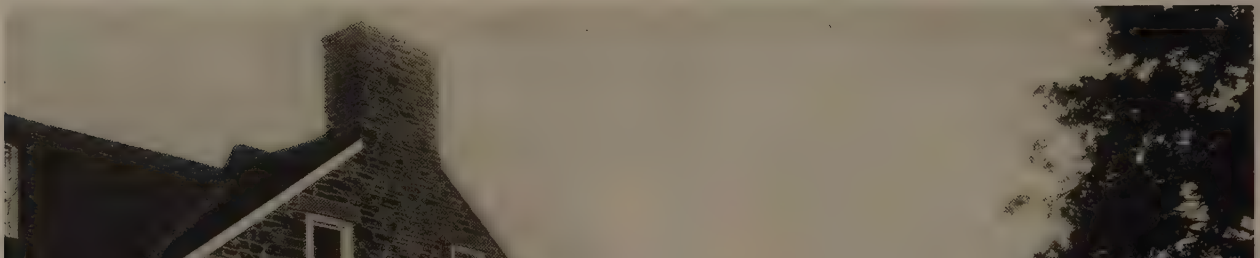
This farmhouse was built a few years ago as the year-round home of a family who wanted to be actual tillers of the soil.

The main house with its Dutch roof and wings was built first, and later the stone wing was added to be used as an office and library. The stone used in the ends of the main house and the new wing is local field stone, containing quite a bit of iron. Its jointing is flush and the mortar white. The stucco on the old portion is natural color and the trim white, with the blinds and doors medium green. The roof is of wood shingles stained brown.

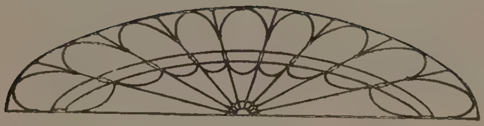
On the garden side of the house the outlook, across rolling fields, is toward a lake with mountain background.

HOUSE OF LAURANCE M. THOMPSON, MONTROSE, PA. LEWIS E. WELSH, ARCHITECT





House of Laurance M. Thompson, Montrose, Pa. Lewis E. Welsh, Architect



ARCHITECTURE'S COMPETITIONS

ARCHITECTURE'S second series of competitions is launched with the programme set forth below. There is plenty of time allowed for its completion—not so much, however, as to permit contestants to postpone action for very long. The time to begin studying the problem is now. This page will not appear again before the closing.

As in the previous series, completed in March last, the problems chosen will be comparatively simple, requiring but one drawing, and that in a wide choice of media. There will be four problems, one judged in each period of three months during the year.

The scale of prizes is maintained, with the three medals as additional incentive, all according to the "General Conditions" printed below.

GENERAL CONDITIONS

The Jury of Awards: Messrs. Raymond M. Hood, Ralph T. Walker, and the Editor of ARCHITECTURE.

Compensation to Competitors: ARCHITECTURE will pay to the winners of each competition, immediately after receiving the jury's judgment, the following:

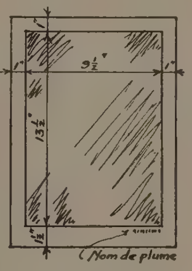
For Design placed	First....	$150.00
" " "	Second..	75.00
" " "	Third...	30.00 in books*
" " "	Fourth..	20.00 in books*
" " "	Fifth...	10.00 in books*

* These to be chosen from the Art and Architectural list of Charles Scribner's Sons.

In addition to the above awards, which are made for each one of the quarterly competitions, ARCHITECTURE will present three medals at the end of the fourth competition, one of gold, one of silver, and one of bronze, to the three designs chosen from among the quarterly awards which, in the opinion of the jury, show the greatest merit in design.

Eligibility: Architects, students, and draftsmen are invited to enter one or all of these competitions. It is *not* necessary that a competitor be a subscriber to ARCHITECTURE. A competitor may submit one or more designs in any of these competitions, but not more than one prize will be awarded to a competitor in each.

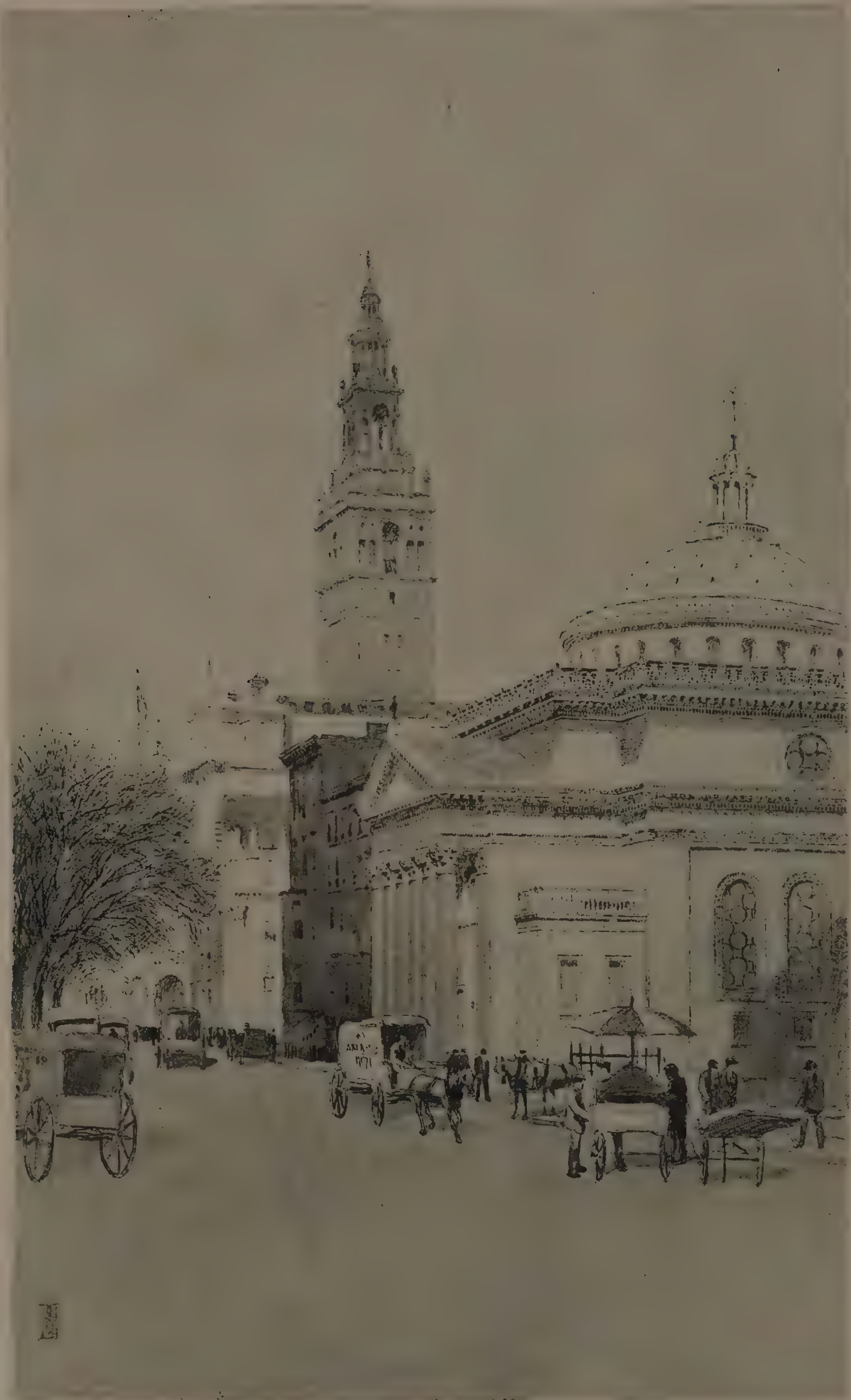
Requirements: One sheet (paper, not cardboard) only is required for the presentation of each design. It must be exactly of the size indicated in the sketch diagram herewith, the border margins left blank excepting for the nom de plume or other identifying device. The drawing may be in line or wash, or both, but if in wash it should be in monochrome, preferably in India ink. Indicate all scales graphically. To preserve the anonymity of drawings, each is to be signed with a nom de plume which is also written upon the outside of a blank white envelope containing the competitor's name and address. Drawings may be sent flat or rolled, and are to be addressed "ARCHITECTURE, Competition No. I, 597 Fifth Ave., New York, N. Y." The closing time given below is for receipt of entries at the office of ARCHITECTURE, rather than the closing by postmark date—this being necessary in order that judgments can be made and published in the following issue of the magazine. In justice to all, no questions regarding the competitions can be answered.



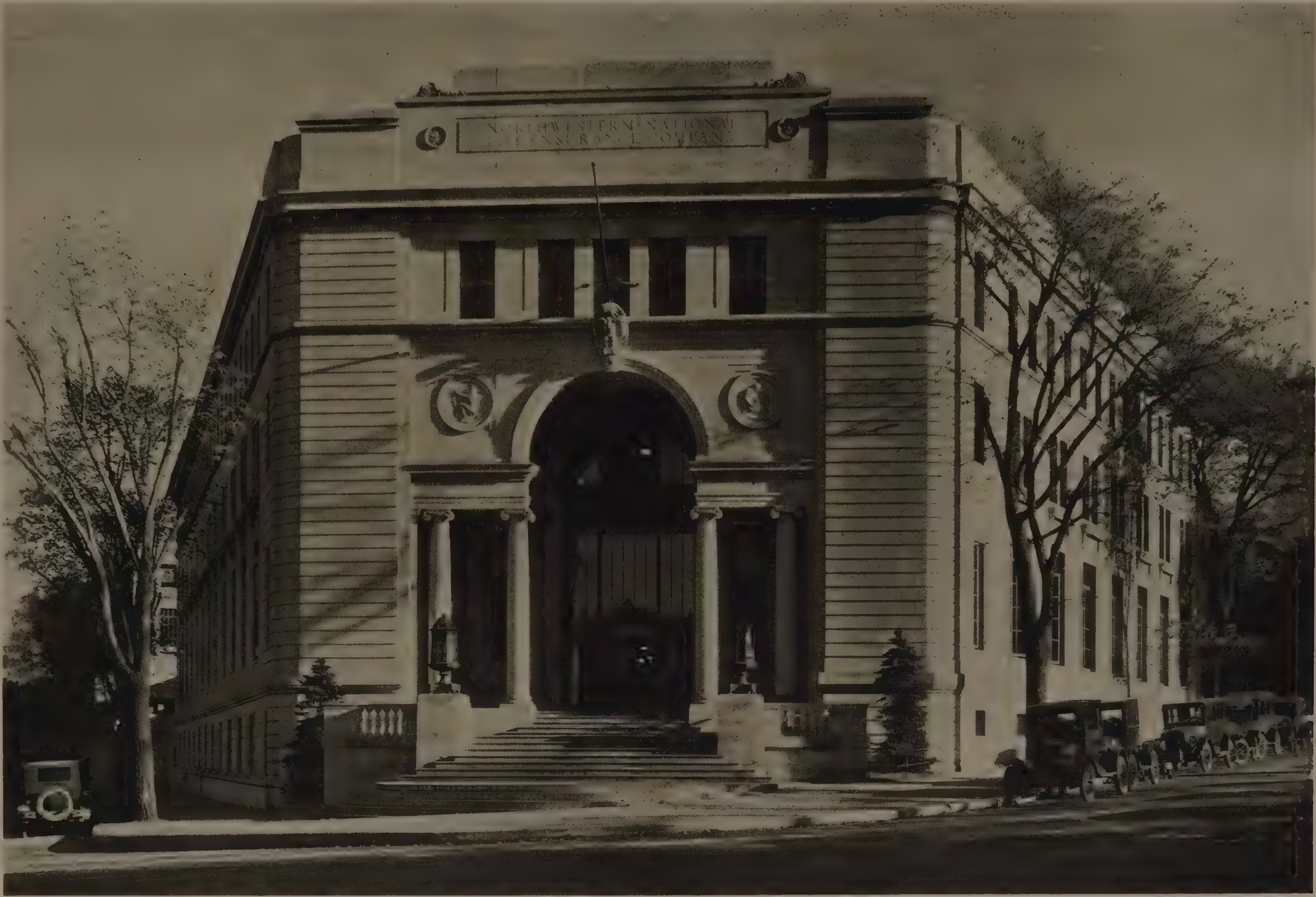
Drawings awarded prizes become the property of ARCHITECTURE for publication and for any other use at the publishers' discretion. Other drawings will be returned to the senders if postage is included.

COMPETITION I. *Closing August 1, 1928, at noon*

It is required to design the entrance gateway to a country estate that has considerable size but little pretension to grandeur. The entrance is from a highway, leading through woodland in a winding course to the house. There is no need for a footpath gateway—merely the main gateposts flanking the drive, and either a pair of gates or some other method of closing the driveway when the house is unoccupied. Provide for lighting the entrance, and for a very inconspicuous estate name. The house itself is of rubble stone, the broad white mortar joints nearly covering the face of the long horizontally accented units; trim and very simple exterior woodwork are of natural oak; roof is of graduated slate. Architecturally the house cannot be labelled as belonging to any historic style, so that the problem of the gateway is not an archæological one. Planting will adjoin the gateposts—no wall nor fence. Show front elevation, half-plan, and any larger-scale details.

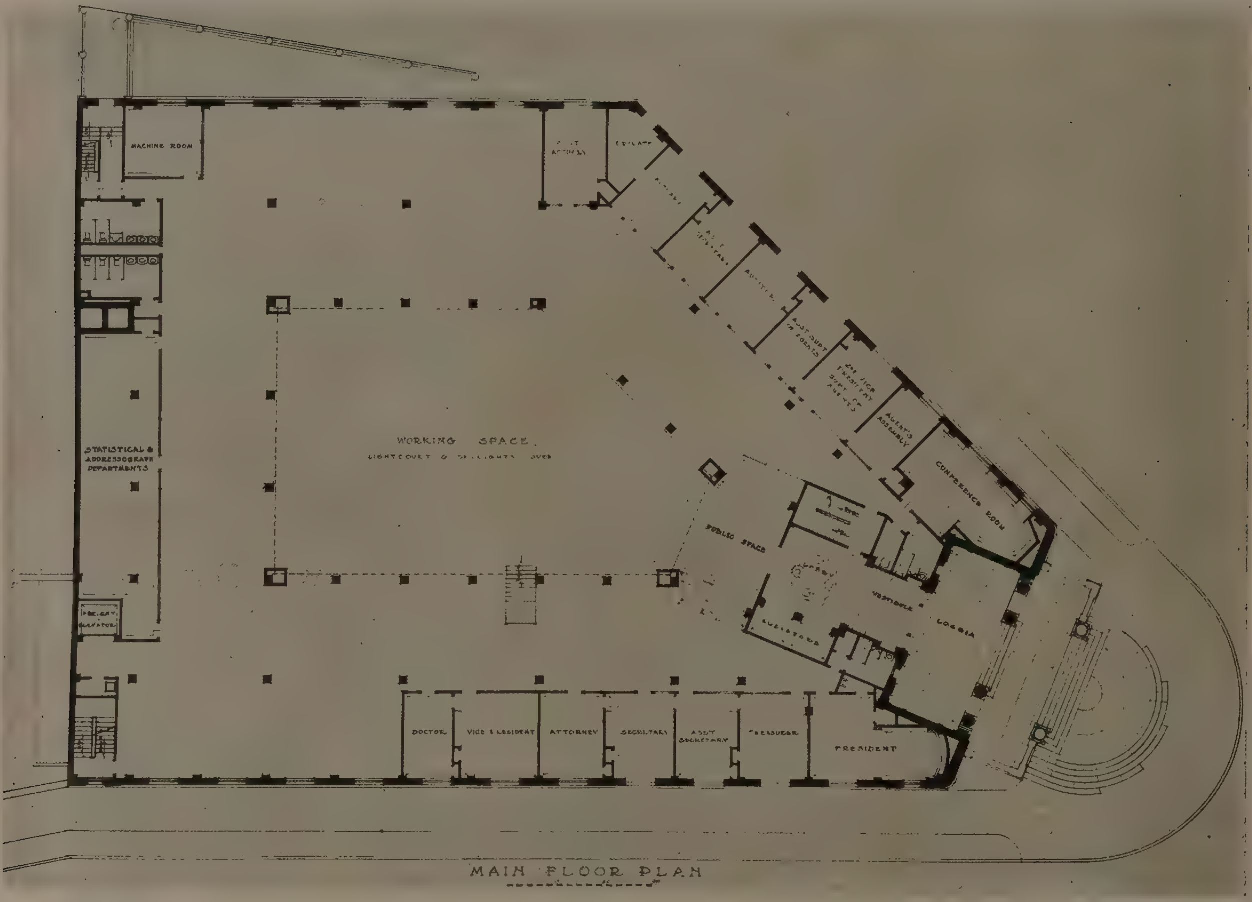


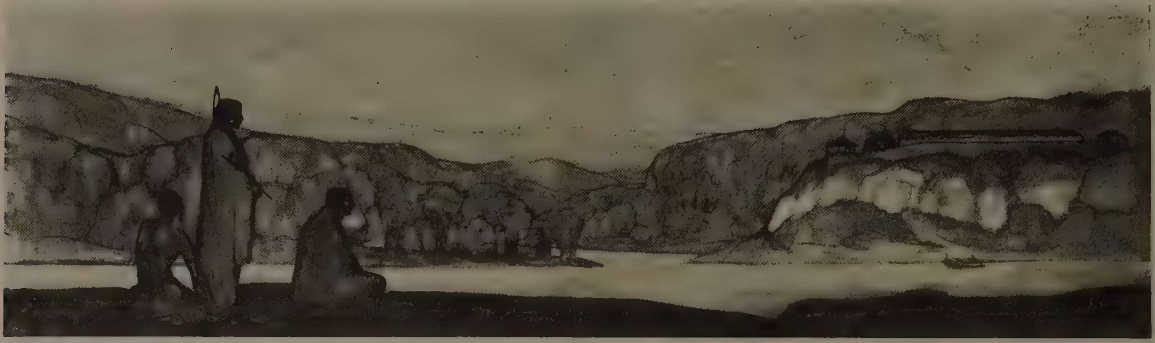
The Madison Square that was, and is no more. A drawing by the late Birch Burdette Long, showing the Madison Square tower and Doctor Parkhurst's church. Both famous monuments, by McKim, Mead & White, have gone.

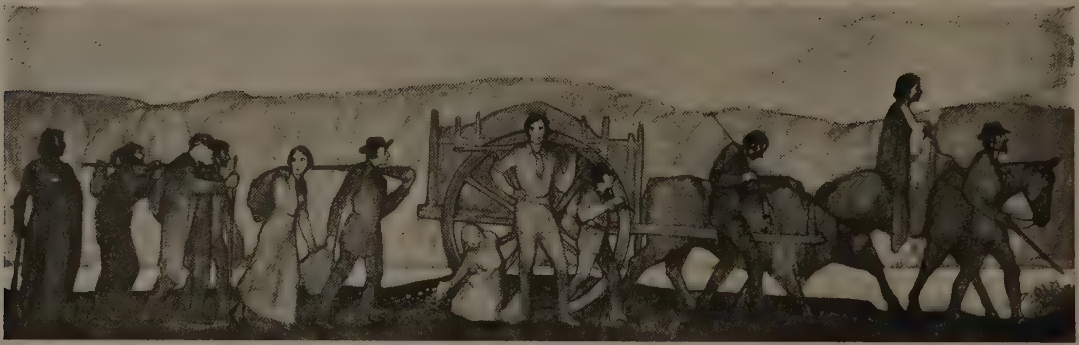


Northwestern National Life Insurance Building, Minneapolis, Minn. HEWITT & BROWN, ARCHITECTS

Adjoining Loring Lake, on the camp site of the last Indian to live within the confines of Minneapolis

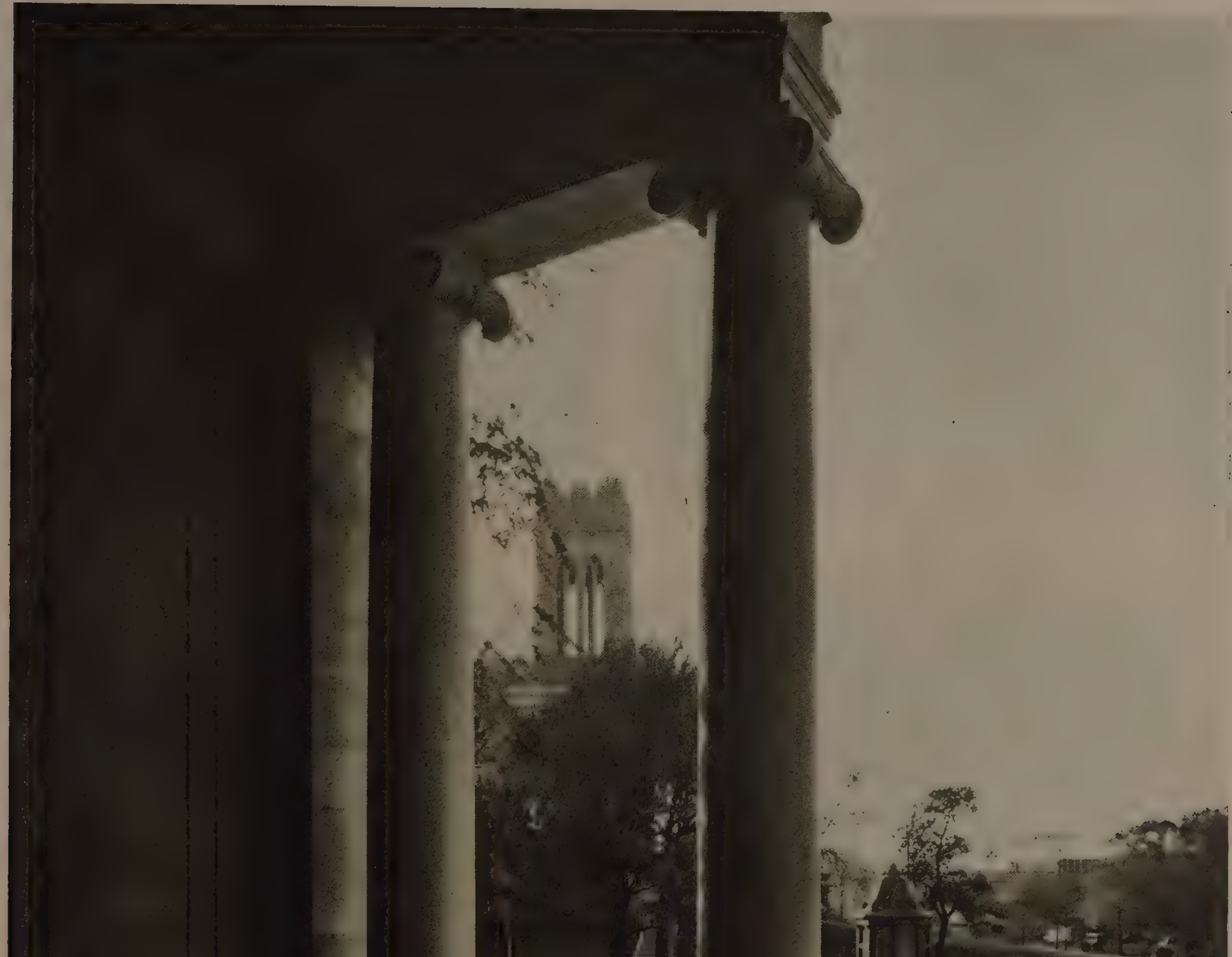




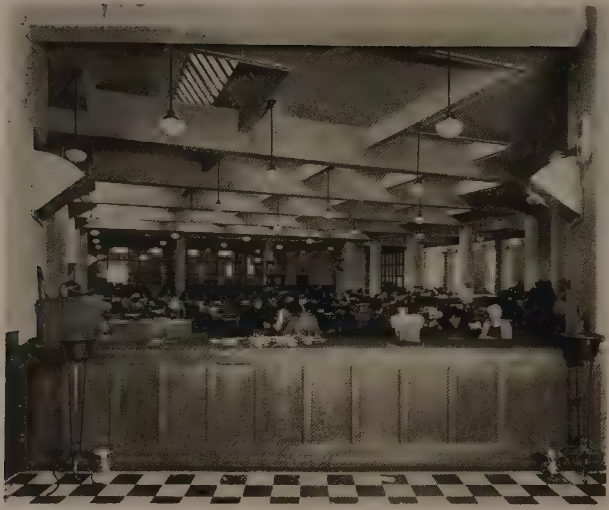


Murals by Harry W. Rubins

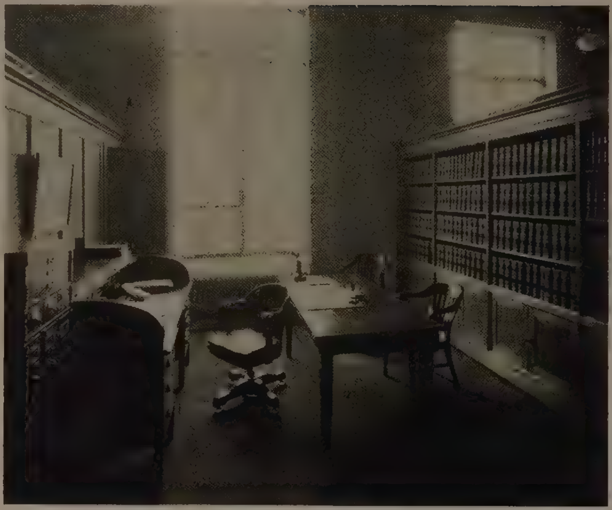
Northwestern National Life Insurance Building, Minneapolis, Minn. HEWITT & BROWN, ARCHITECTS



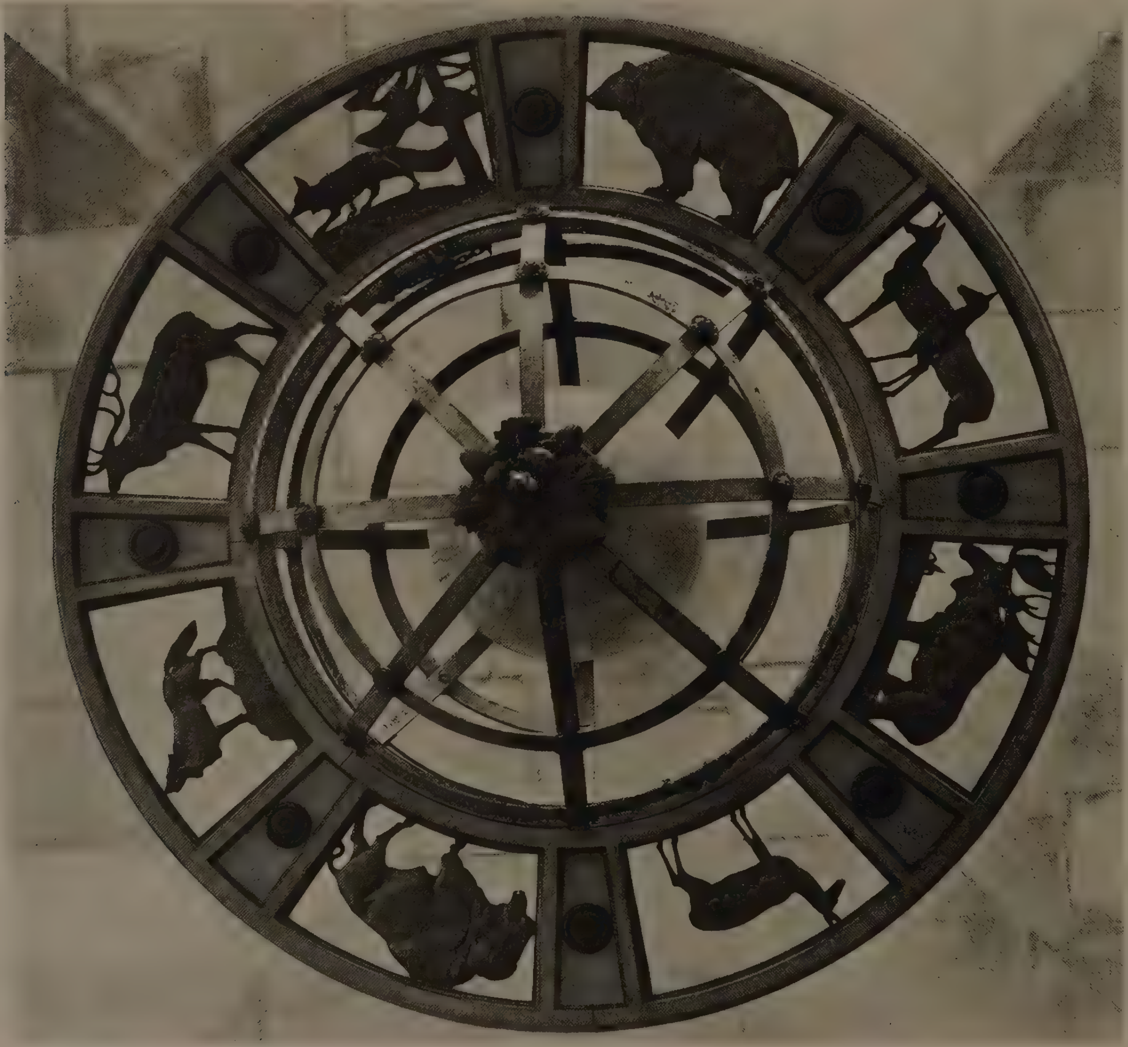
Northwestern National Life Insurance Building, Minneapolis, Minn. HEWITT & BROWN, ARCHITECTS



General office



Typical executive office



Lighting-fixture in loggia, from below *Sculpture by David K. Rubins*

Northwestern National Life Insurance Building, Minneapolis, Minn. HEWITT & BROWN, ARCHITECTS

ARCHITECTURE'S PORTFOLIO
OF
CUPOLAS

Subjects of Previous Portfolios

STAIRWAY DETAILS (GEORGIAN, EARLY AMERICAN, ETC.)
February, 1927

PANELLING OF THE ENGLISH TYPES
January, 1927

STONE MASONRY TEXTURES
March, 1927

FANLIGHTS AND OTHER OVERDOOR TREATMENTS
May, 1927

DOOR HARDWARE
August, 1927

TEXTURES OF BRICKWORK
June, 1927

IRON RAILINGS
July, 1927

ENGLISH CHIMNEYS
April, 1927

GABLE ENDS
October, 1927

PALLADIAN MOTIVES
September, 1927

CIRCULAR AND OVAL WINDOWS (CLASSIC AND RENAISSANCE)
December, 1927

COLONIAL TOP-RAILINGS OF WOOD
November, 1927

BUILT-IN BOOKCASES
January, 1928

DOOR HOODS
March, 1928

BAY WINDOWS
April, 1928

CHIMNEY TOPS
February, 1928

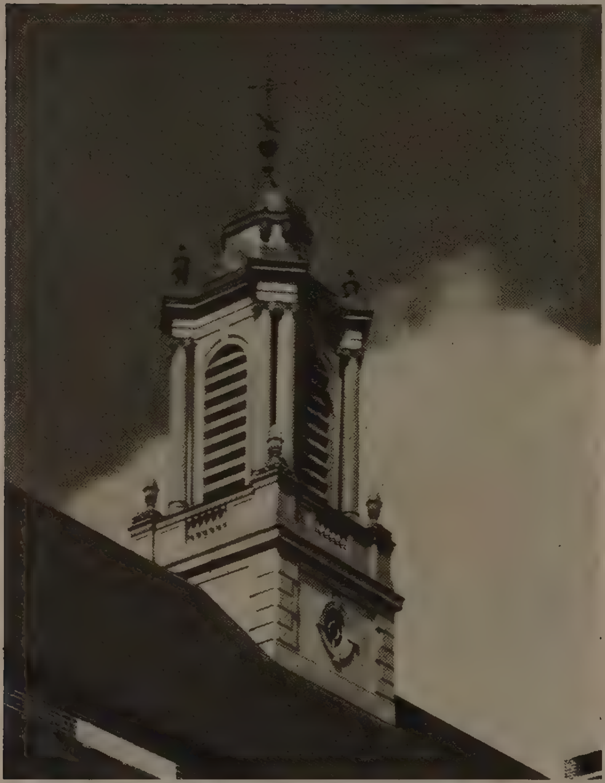
SUBJECTS IN PREPARATION FOR FUTURE ISSUES

Beamed Ceilings
Oriel Windows
Fences
Stair Ends

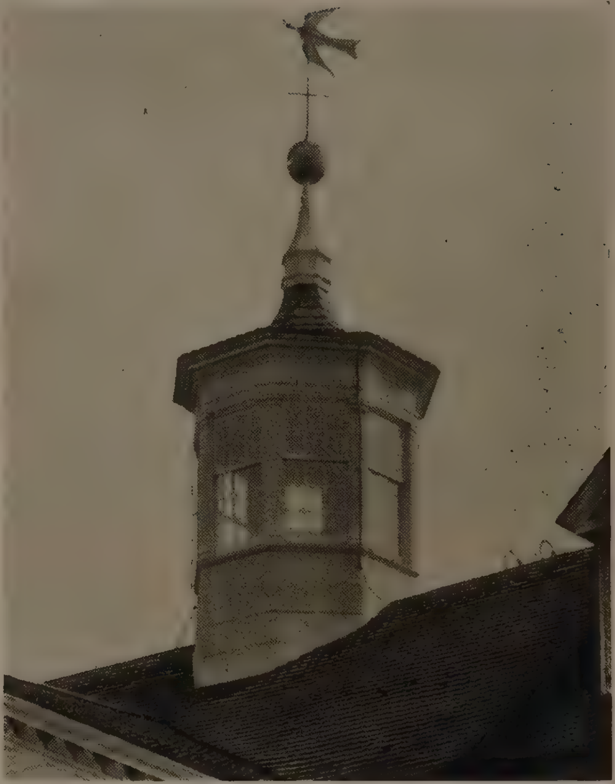
Leaded Glass Medallions
Cornices of Wood
Decorative Plaster Ceilings
Garden Steps

English Fireplaces
Floors of Wood
Elevator Doors
Garden Gates

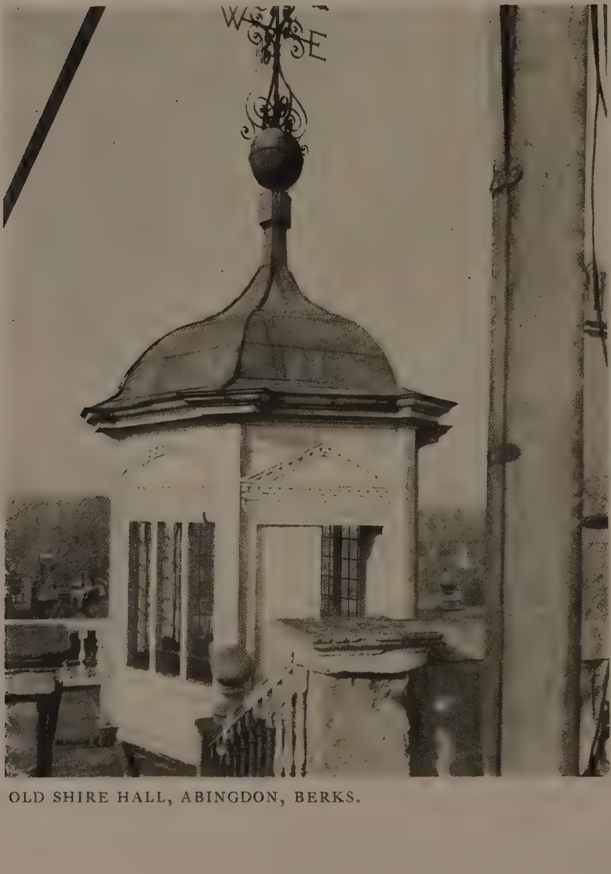
Garden Walls
Rain-Conductor Heads
Stucco Textures
Treillage



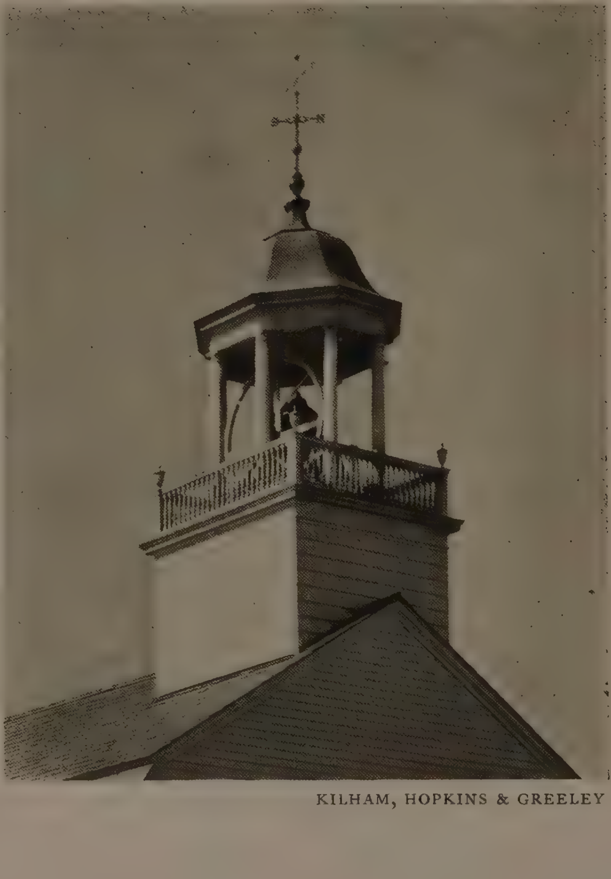
RIPLEY & LE BOUTILLIER



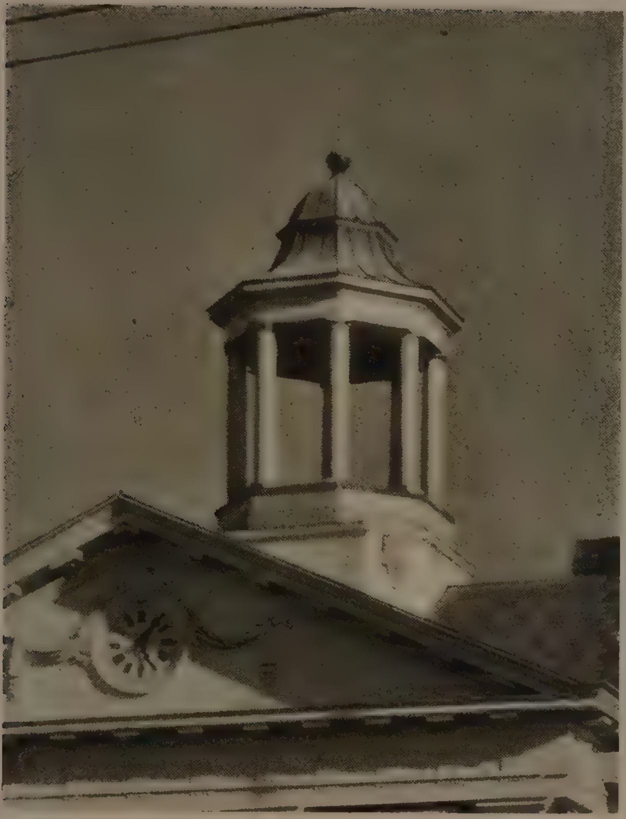
MOUNT VERNON, VIRGINIA

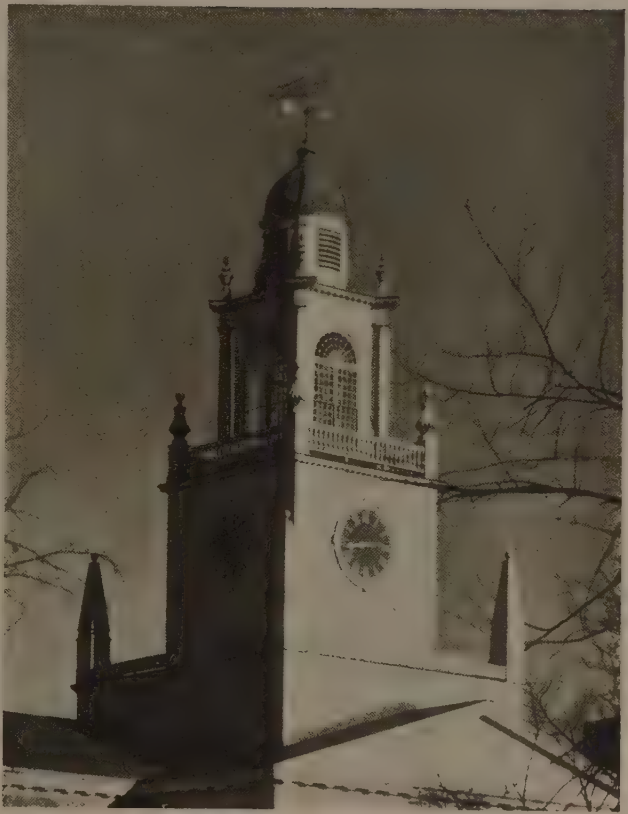


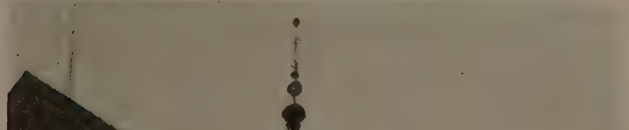
OLD SHIRE HALL, ABINGDON, BERKS.

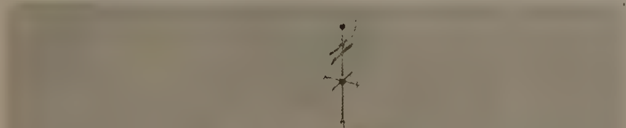


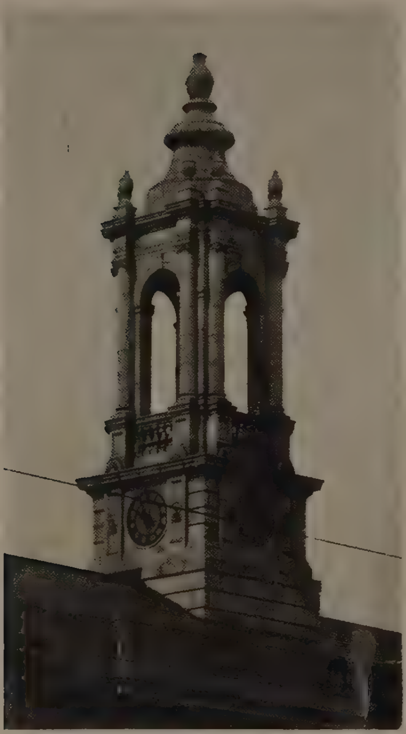
KILHAM, HOPKINS & GREELEY


PARKER, THOMAS & RICE

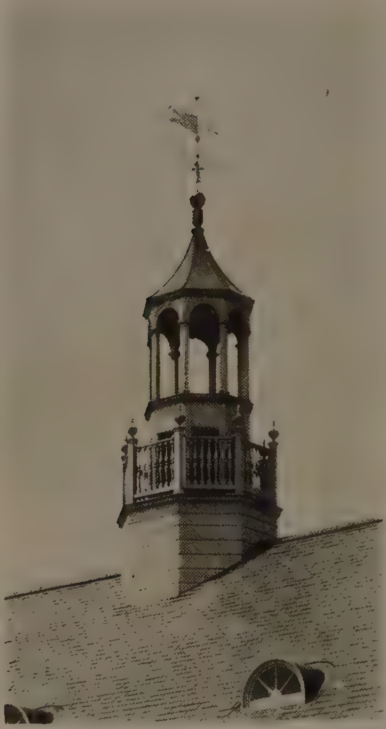

GUY LOWELL


OLD STATE HOUSE, BOSTON

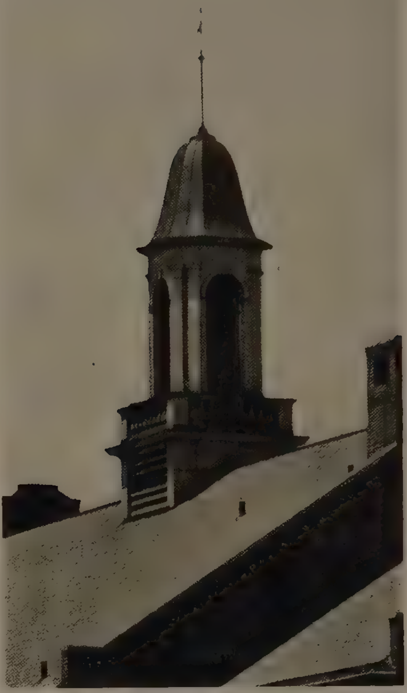

MORRIS COUNTY COURT-HOUSE, MORRISTOWN, N. J. 1827



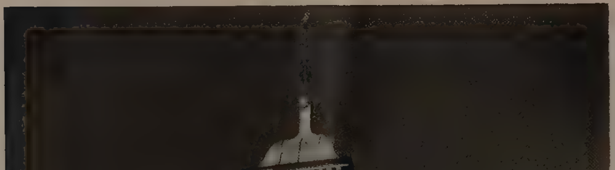
R. CLIPSTON STURGIS



GUY LOWELL

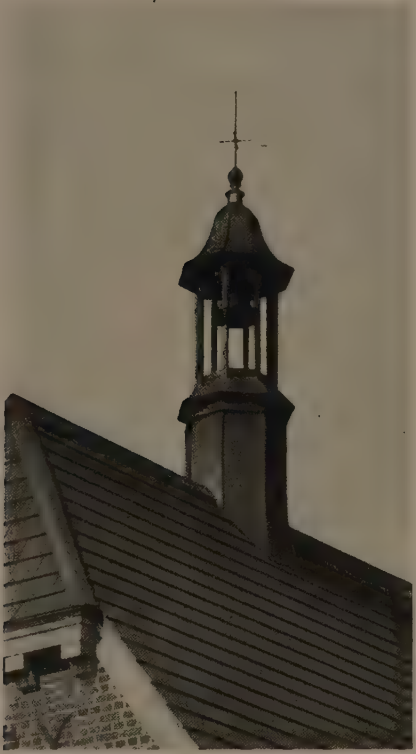


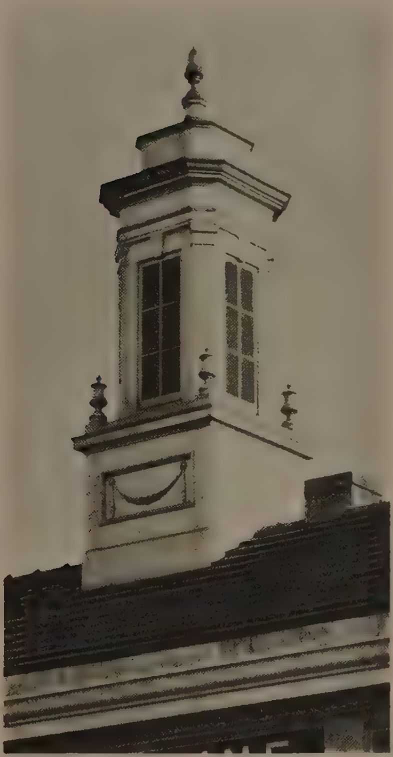
FECHHEIMER, IHORST & McCOY

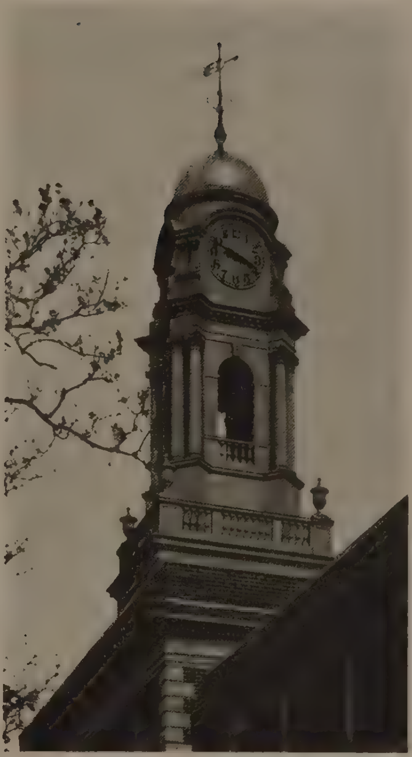


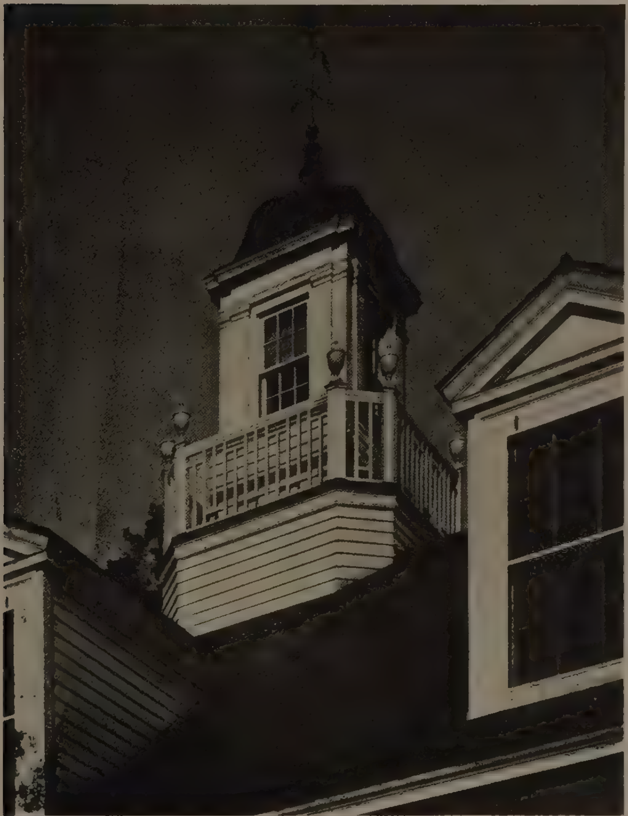
RIPLEY & LE BOUTILLIER

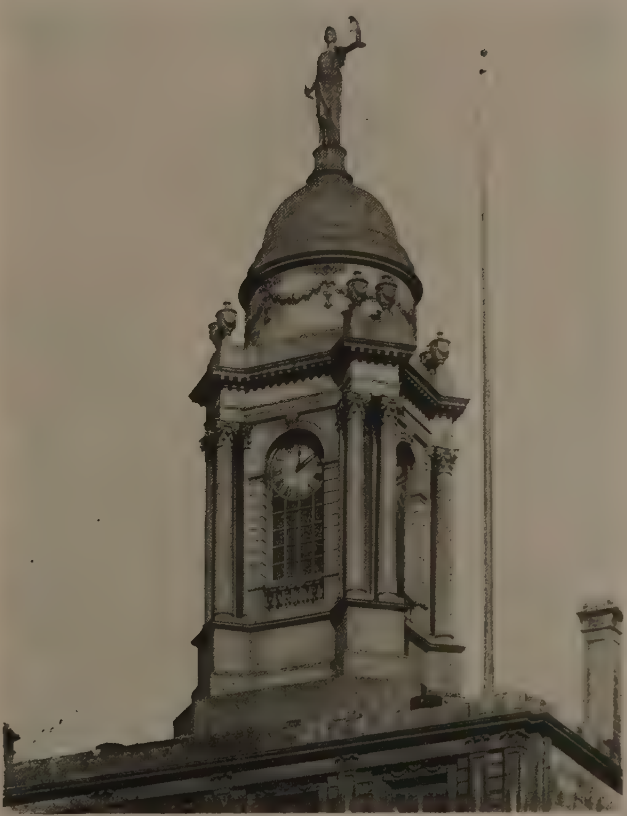
PEABODY, WILSON & BROWN

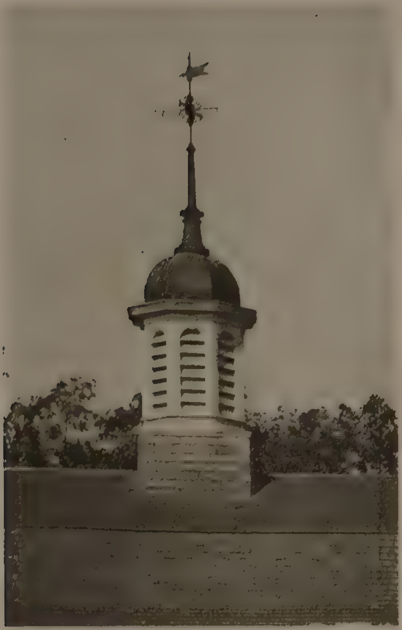

PARSONS & WAIT


PARSONS & WAIT

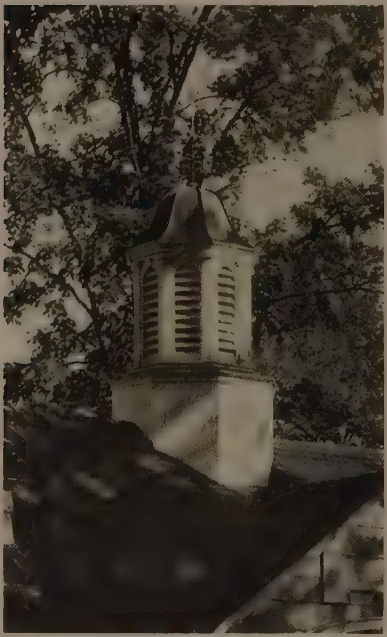

FELLHEIMER & WAGNER


BENJAMIN WISTAR MORRIS

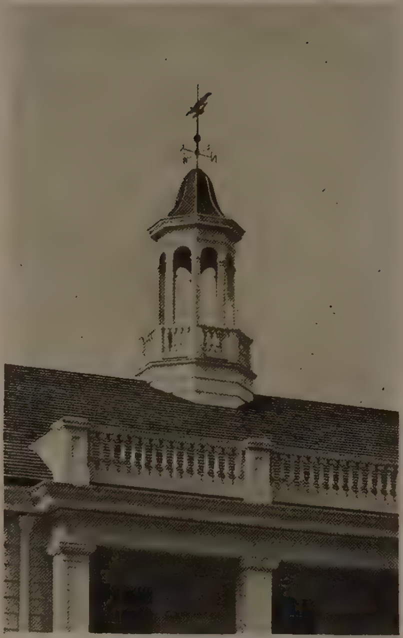

JOHN McCOMB. NEW YORK CITY HALL



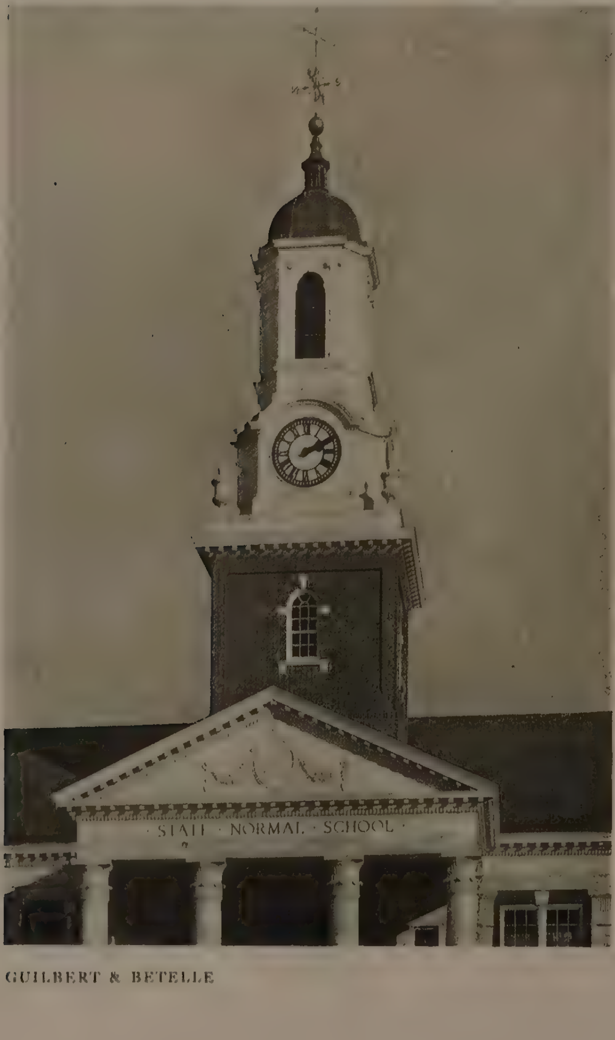
HARRY ST. CLAIR ZOGBAUM



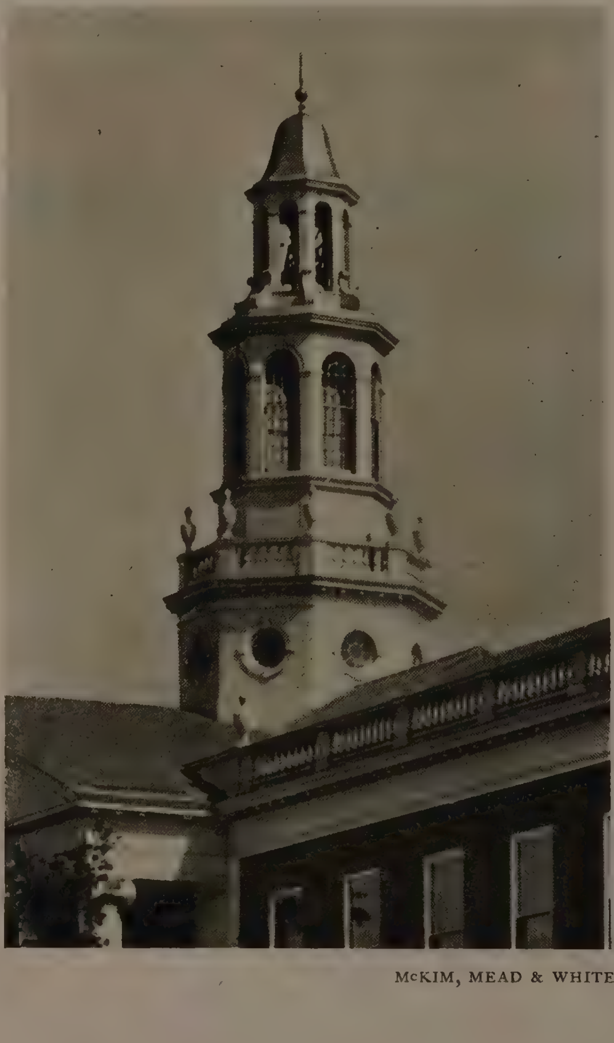
JOHN RUSSELL POPE



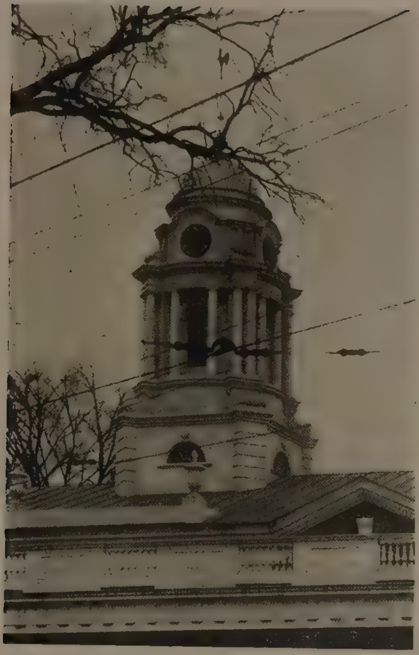
PAYNE, GRISWOLD & KEEFE



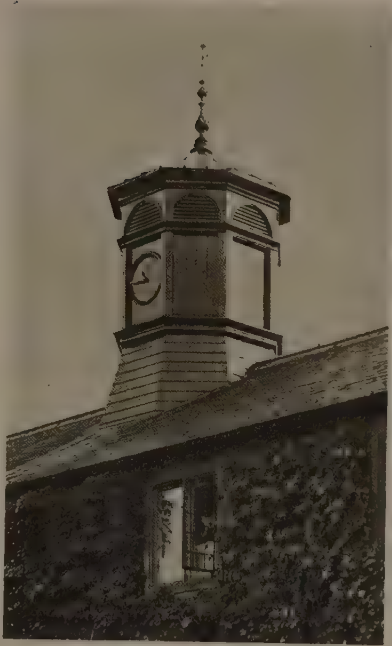
GUILBERT & BETELLE



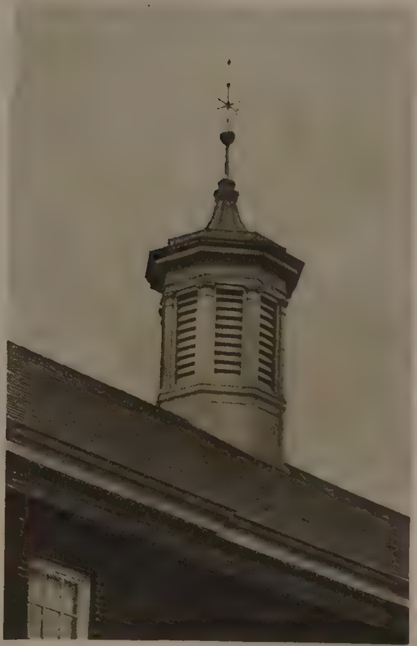
McKIM, MEAD & WHITE



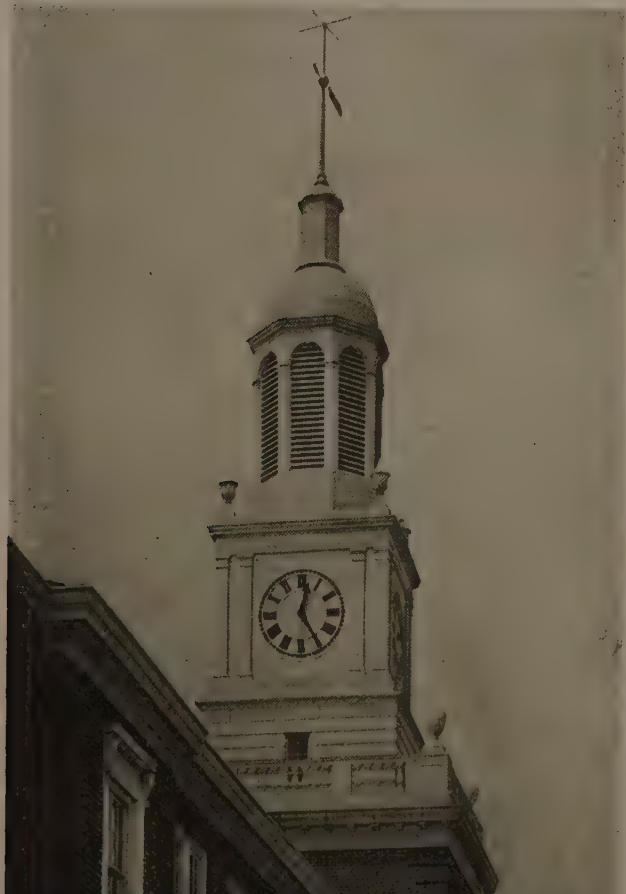
EGERTON SWARTWOUT



LOWER SLAUGHTER MANOR,
GLOUCESTERSHIRE



MEYER & MATHIEU



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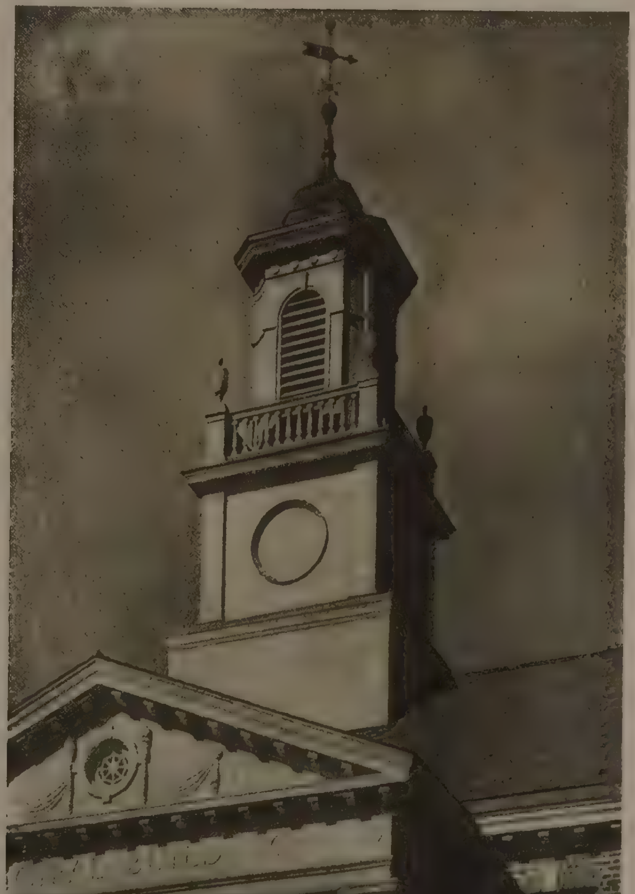

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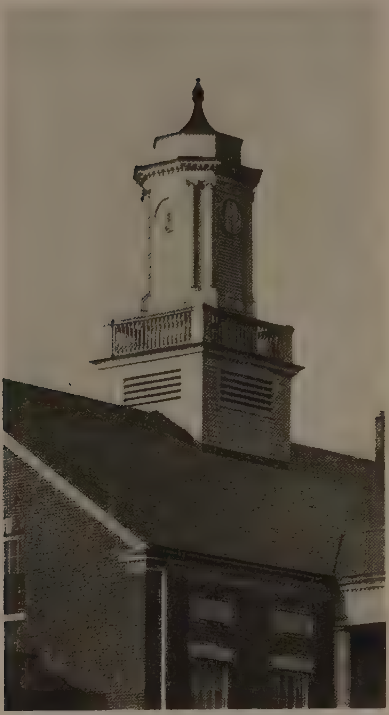

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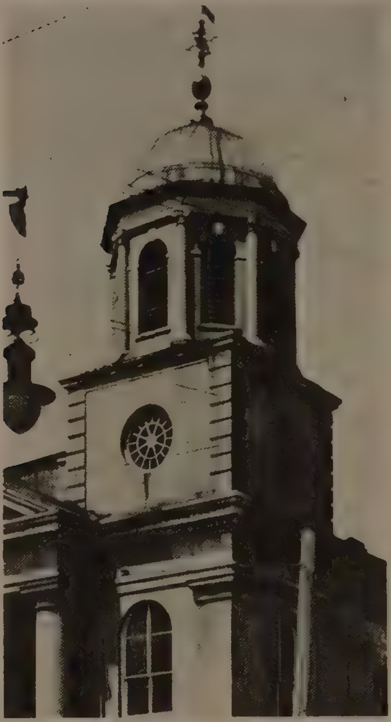
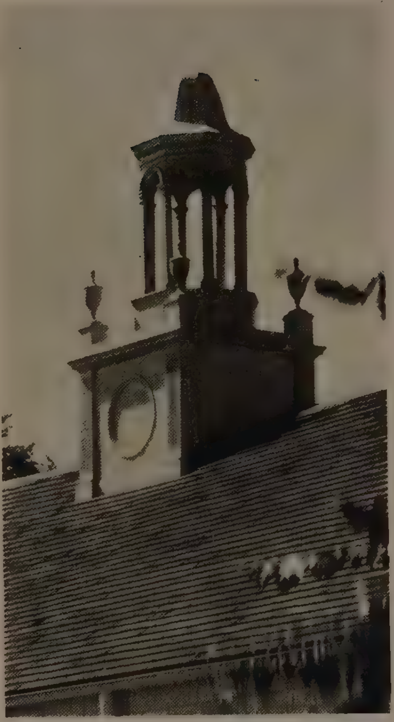
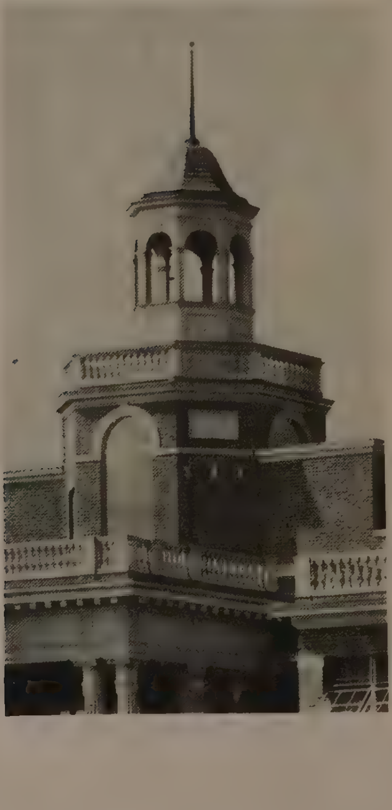


SCOTCH PRESBYTERIAN CHURCH,
CHARLESTON, S. C.

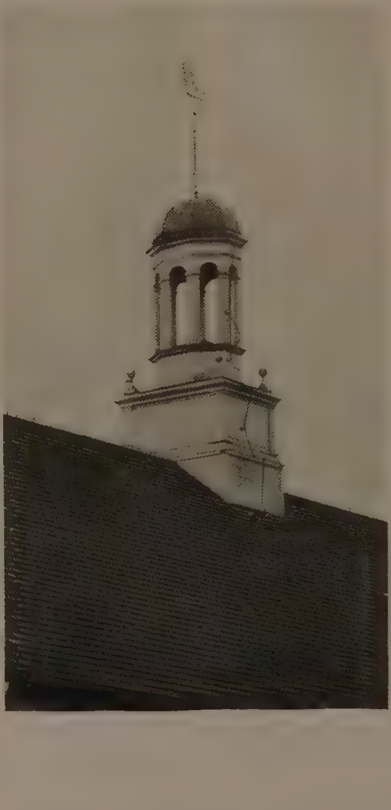


ALFRED HOPKINS

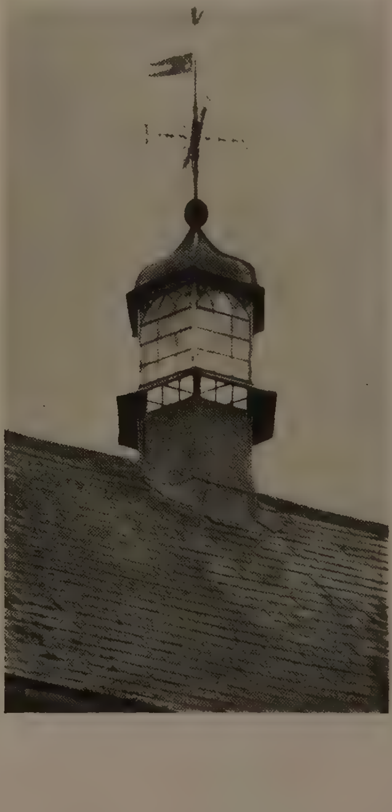
ARNOLD H. MOSES, ARCHITECT;
WALTER T. MAYO, ASSOC.

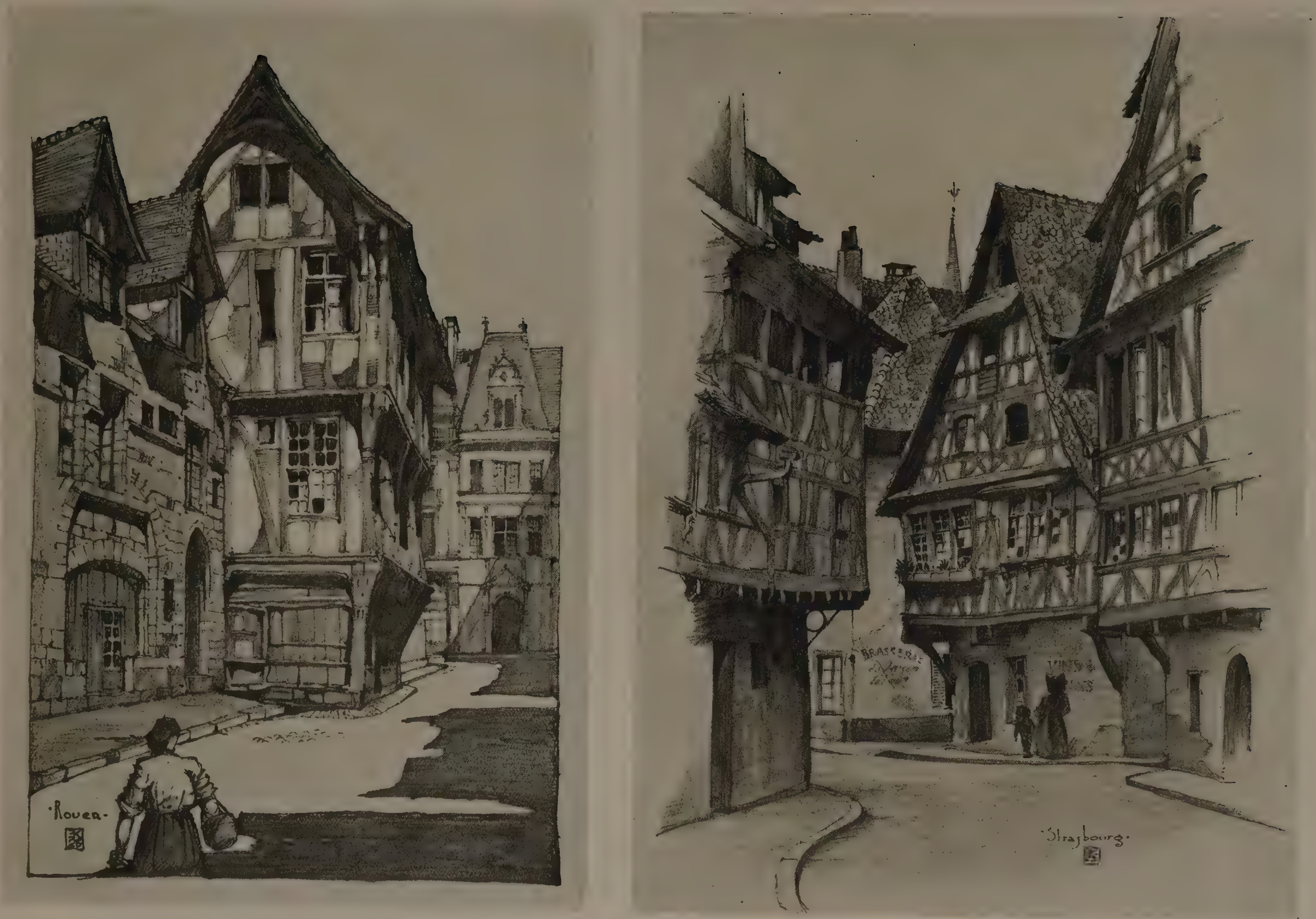


HUBERT E. REEVES

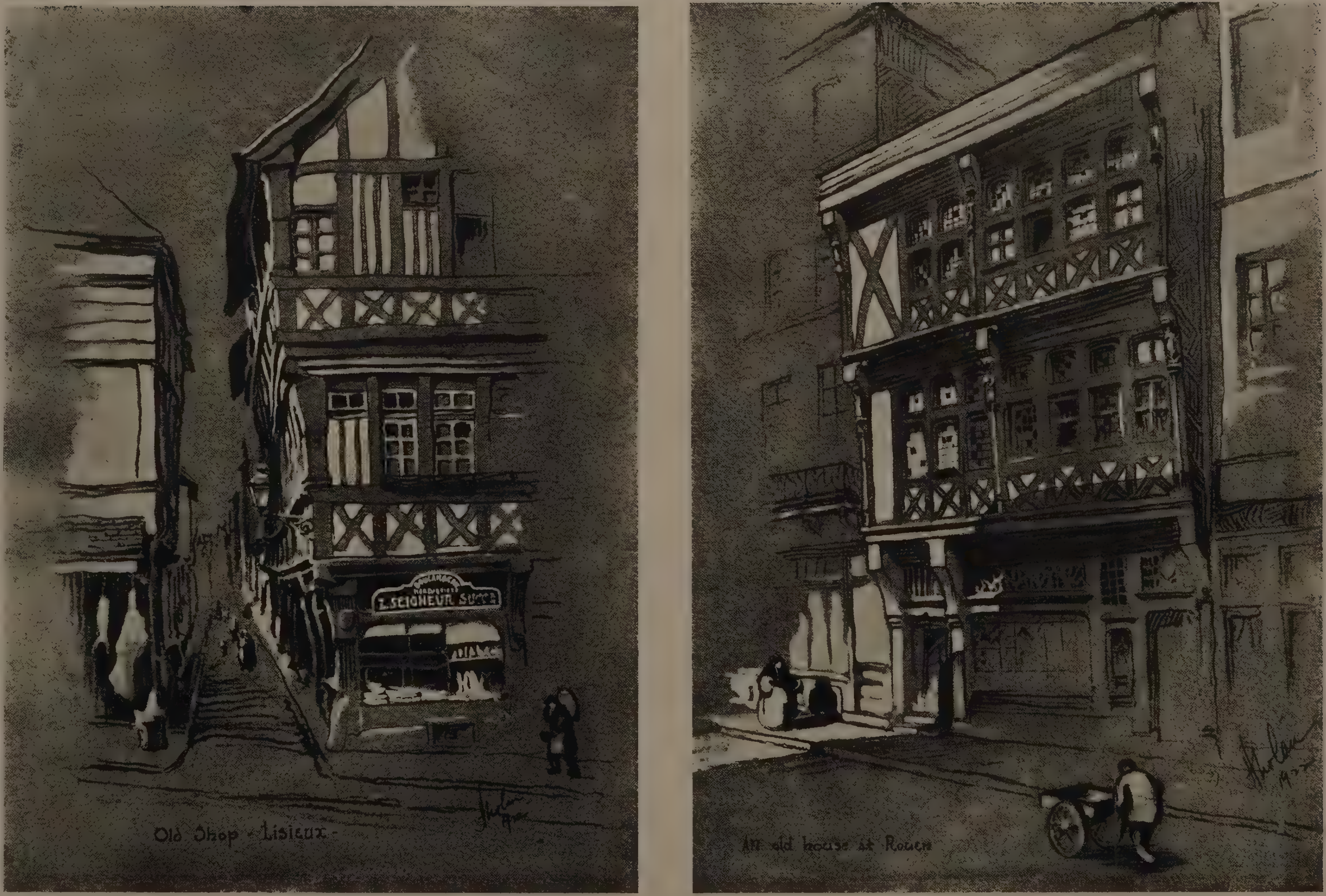


BROADWAY, WORCESTERSHIRE

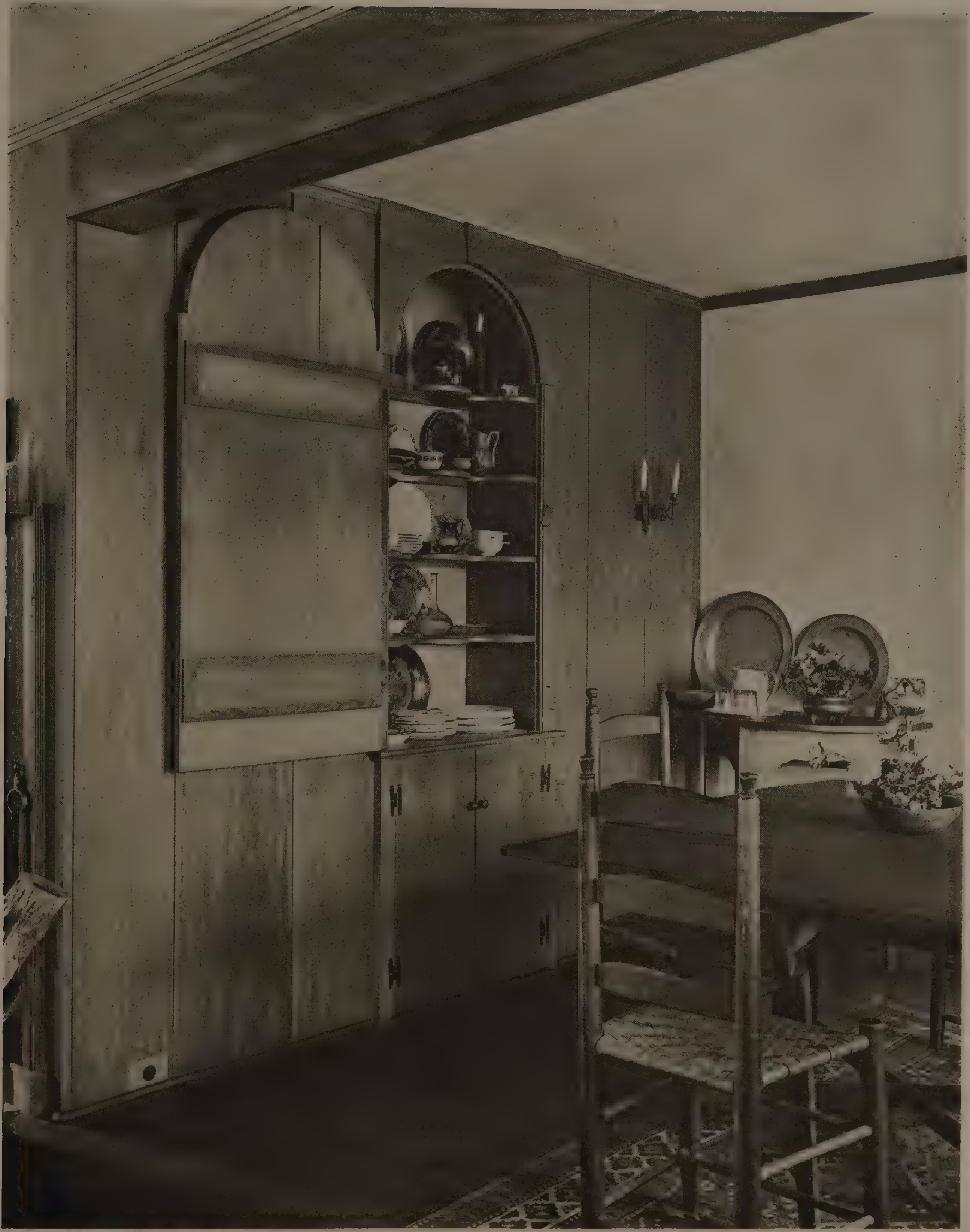




From Pencil Drawings by E. F. Kennedy

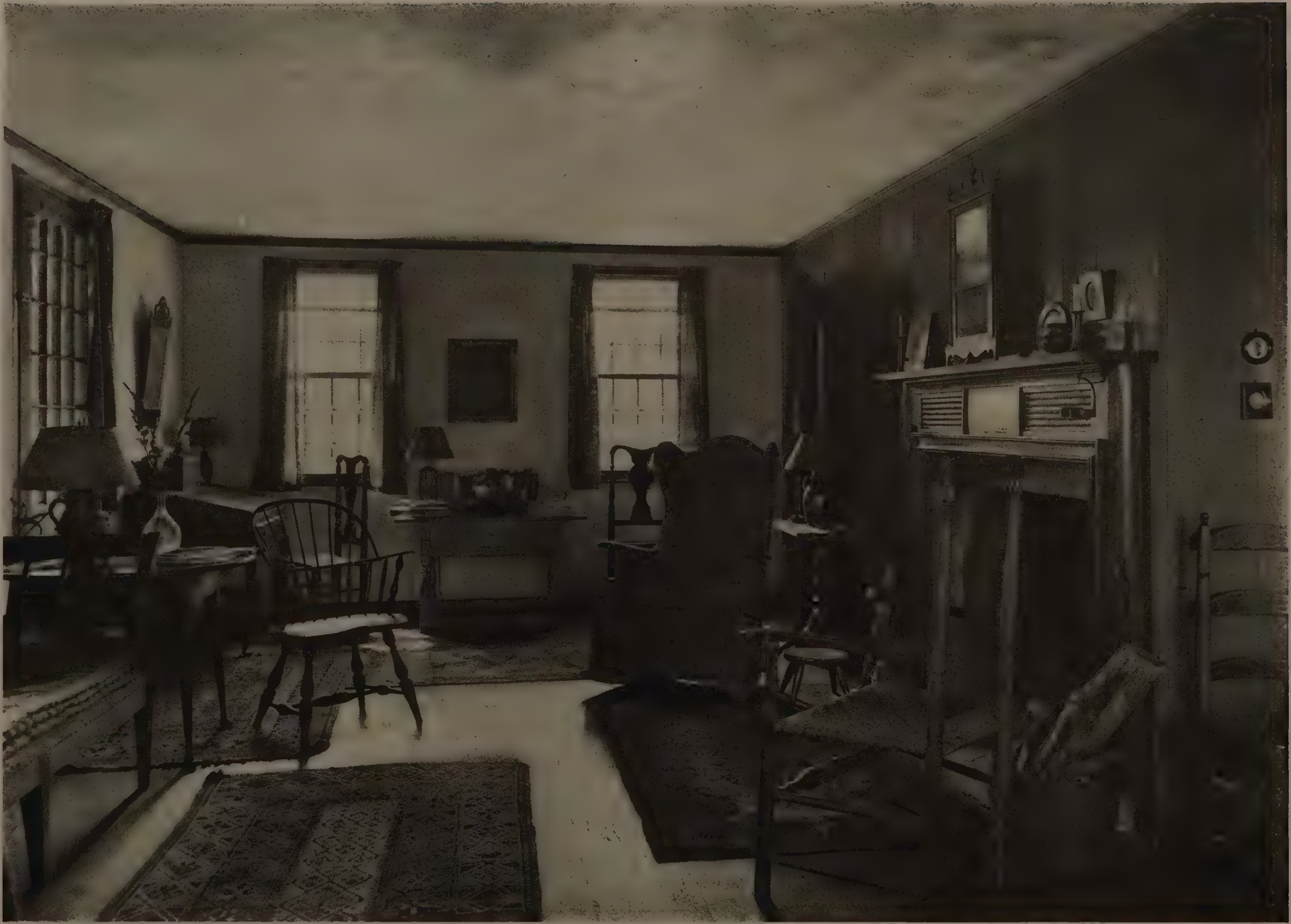


Sketches on Colored Paper in Pencil and Wash, by Humphrey Nolan



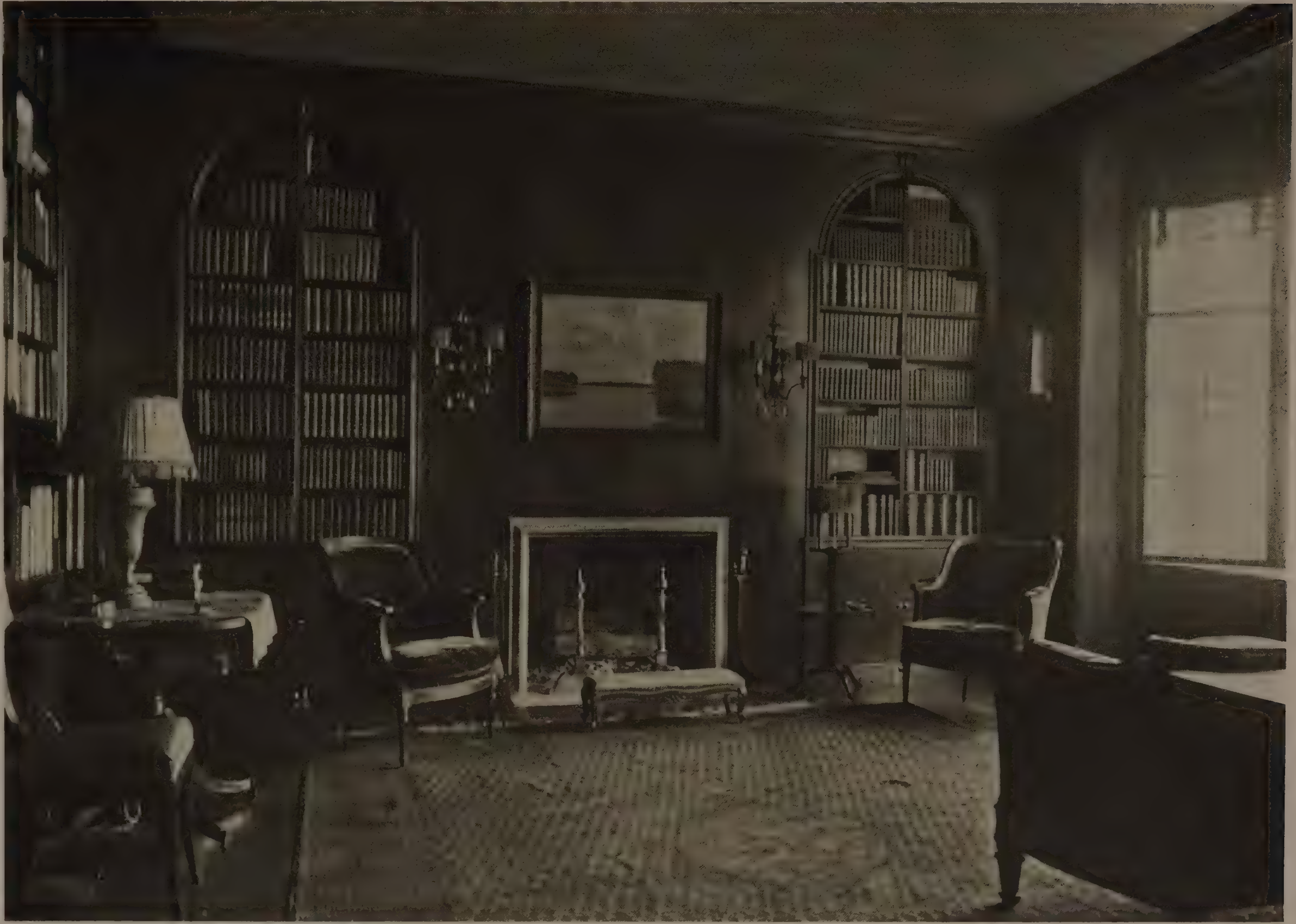
Dining-room, House of Miss Mary P. Bradley, New Canaan, Conn. RICHARD H. DANA, JR., ARCHITECT

The details of this room are similar to those drawn up on page 299 except for the reduction of the base to a quarter-round



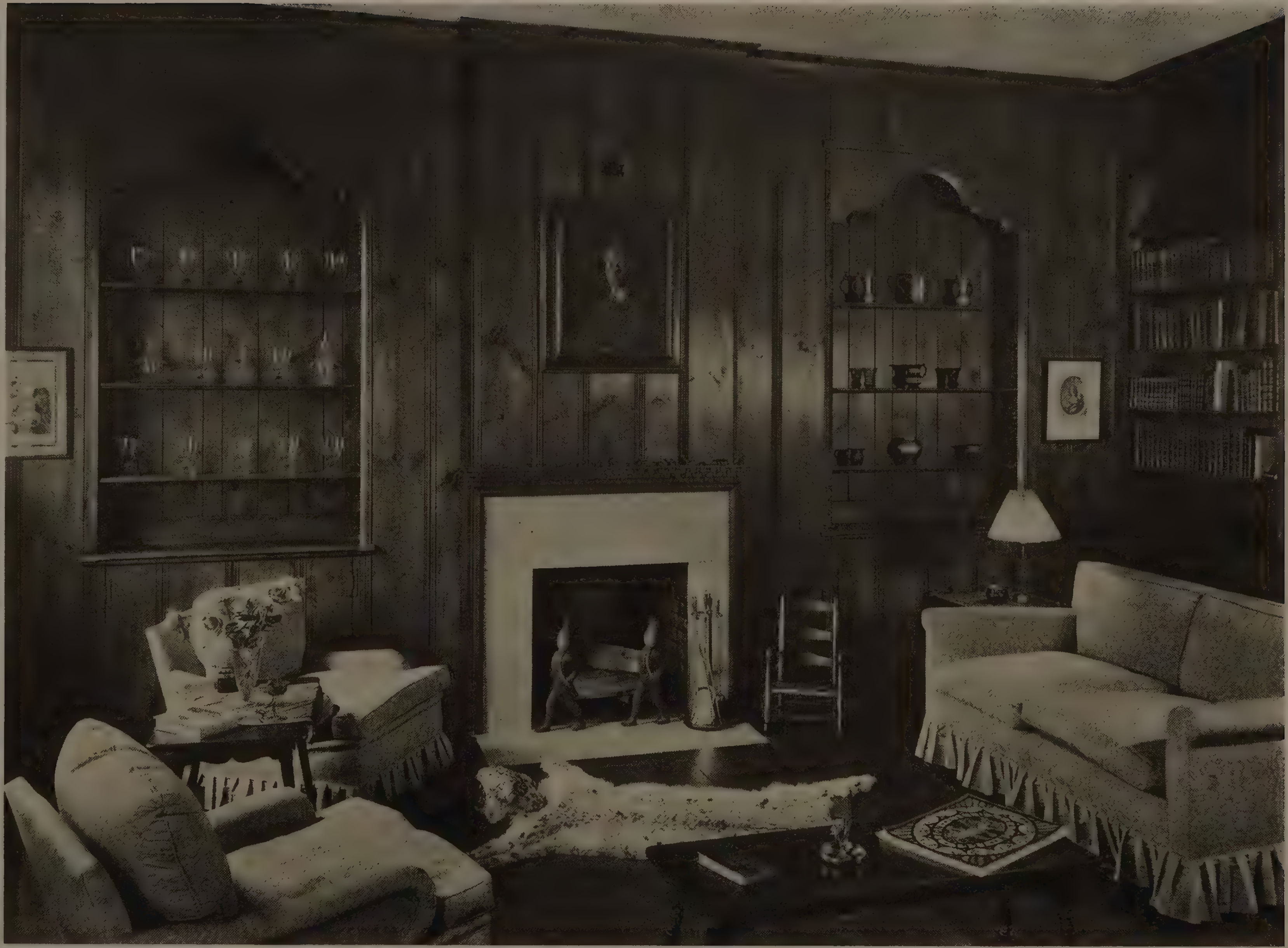
Living-room, House of Miss Mary P. Bradley, New Canaan, Conn. RICHARD H. DANA, JR., ARCHITECT

Both mantel and floor are transplanted veterans from Colonial days, but they should feel perfectly acclimated. The details are similar to those illustrated on page 299



Living-room, House of Joseph P. Chamberlain, New York City — RICHARD H. DANA, JR., ARCHITECT

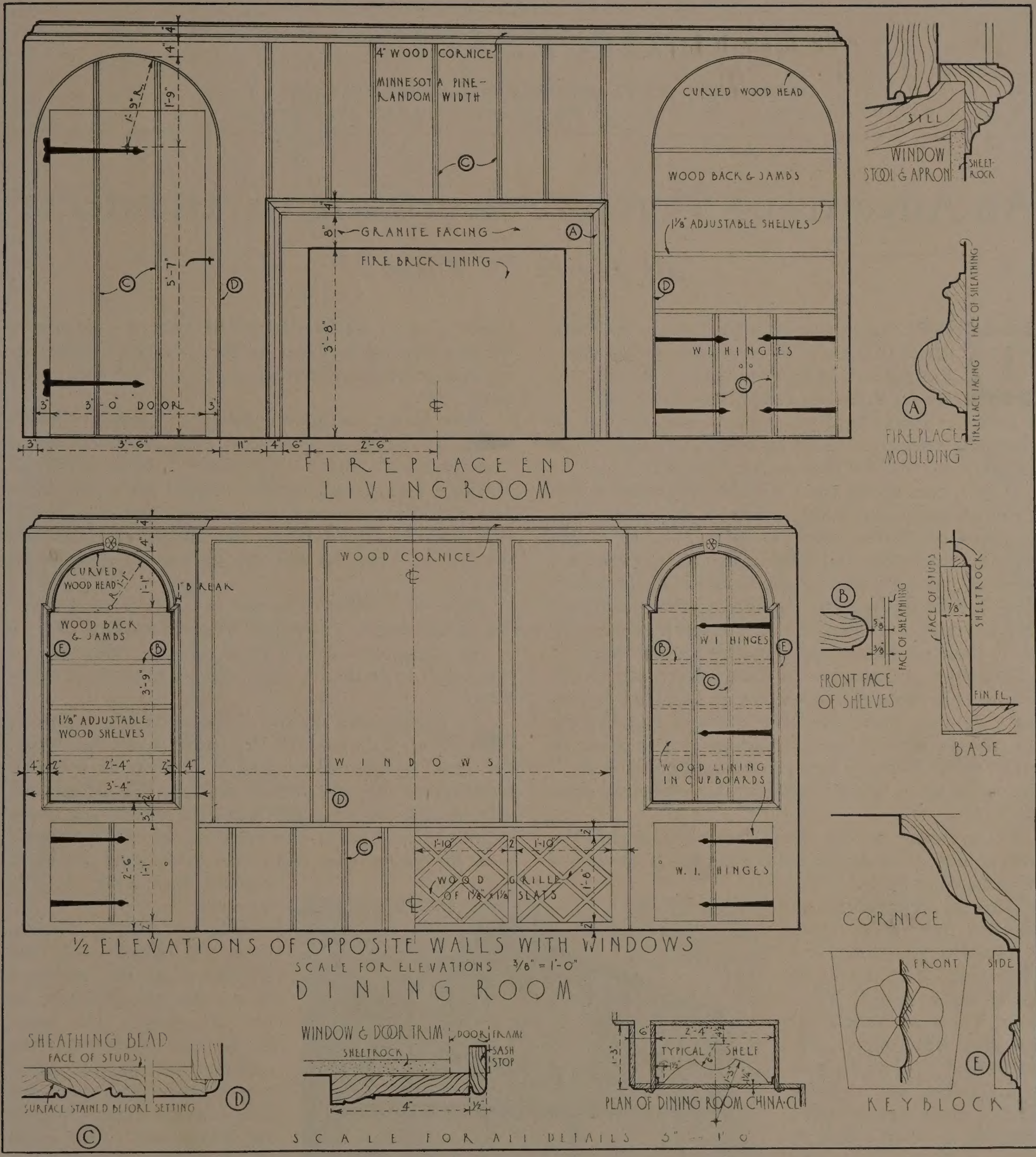
A more sophisticated version of vertical panelling than the Bradley house, and a happy choice of material for a high-ceiling room. Selected gumwood, 1⅛" thick, was used, but Mr. Dana feels that another wood would have been preferable



LIBRARY, APARTMENT OF V. E. MACY, JR., NEW YORK CITY

J. Y. RIPPIN, ARCHITECT

Vertical panelling of random-width white pine, where knots purposely serve as decoration.
The floor is white oak, random width, deck-plugged



Living-room and Dining-room Details, Country House of Charles T. Treadway, Briar Hill, Conn.

RICHARD H. DANA, JR., ARCHITECT

In the American Wing of the Metropolitan Museum, New York City, none of the rooms seems to possess greater naïve charm, more difficult of architectural definition, than those with the vertical panelling. Sophisticated pilasters, chair-rails, and orthodox panels have rules and precedents aplenty, but the humble vertical beading, extending from base-mould to cornice, has an elusive personality all its own. Mr. Richard H. Dana, Jr., has long been appreciated for his scholarly understanding of the finesse of Colonial details—hence the above elevations and details of early American panelling as something of a guide. He is fond of the slight break at the impost of small circular-headed cupboards (dining-room above), of the carved keyblock which any handy carpenter can execute, of omitting or reducing the base to a minimum, and of staining the overlapping faces of the bead before erection so that on shrinking a white line does not appear. Such items can be drawn in black-and-white, but the more subtle effects are a more personal matter. There is, for example, his contagious enthusiasm which accounts for the clients' becoming so vitally interested that they spare no energy in hunting and buying old floors, mantels, hinges, and the like. The results are naturally flavored by the same intimacy and zest which characterizes the revered Colonial precedents.

CONTACTS

DEVOTED TO A BETTER UNDERSTANDING OF THE BUSINESS SIDE
OF ARCHITECTURE AND ITS RELATION TO THE INDUSTRIES

An Advertising Man on Advertising to Architects

By Harry D. Thorn

THERE has appeared in these pages an abundance of articles by *architects* telling *advertising men* how to write their stuff, and others by salesmen telling how advertising to the architect should be done. Seldom, however, has an advertising man dared to lift his voice and suggest that he might have his own ideas on the matter!

In fact, considering their vocation, advertising men are exceptionally inarticulate. Who, in sales work, does not attend convention after convention and sit in sessions where salesmen and sales engineers, in convention assembled, get up, point out the weakness of the advertising, and make decisions intended to remedy irrevocably all errors! Who can ever recall an advertising man in these circumstances defending his methods?

Some day, perhaps, one of these advertising men is going to turn humorist and retain an architect to prepare a design. Then when the architect submits the plan, the advertising man, breathing fire, is going to say: "You're all wrong; here's how it ought to be done!" What is going to result?—another architectural monstrosity!

At least, these are the things that will happen if the methods current in architectural advertising are carried over into other fields.

Does the advertising man have any right to an opinion concerning architectural advertising? If he does, why does he say nothing? Why, despite the continual call for data that will "file readily and properly," does he persist in sending out unfilable material which merely flashes across the architect's desk on its way to the waste-basket? "Bad stuff, a waste of time," etc., say the critics. Do they ever stop to think that the advertising man is judging by results in inquiries and new business received rather than by any of these opinions? Perhaps he has a chart showing the rate of addition of new architect users.

New Bulletin Board for the Architectural League Club-house. Designed and made by Fred Dana Marsh, Sculptor

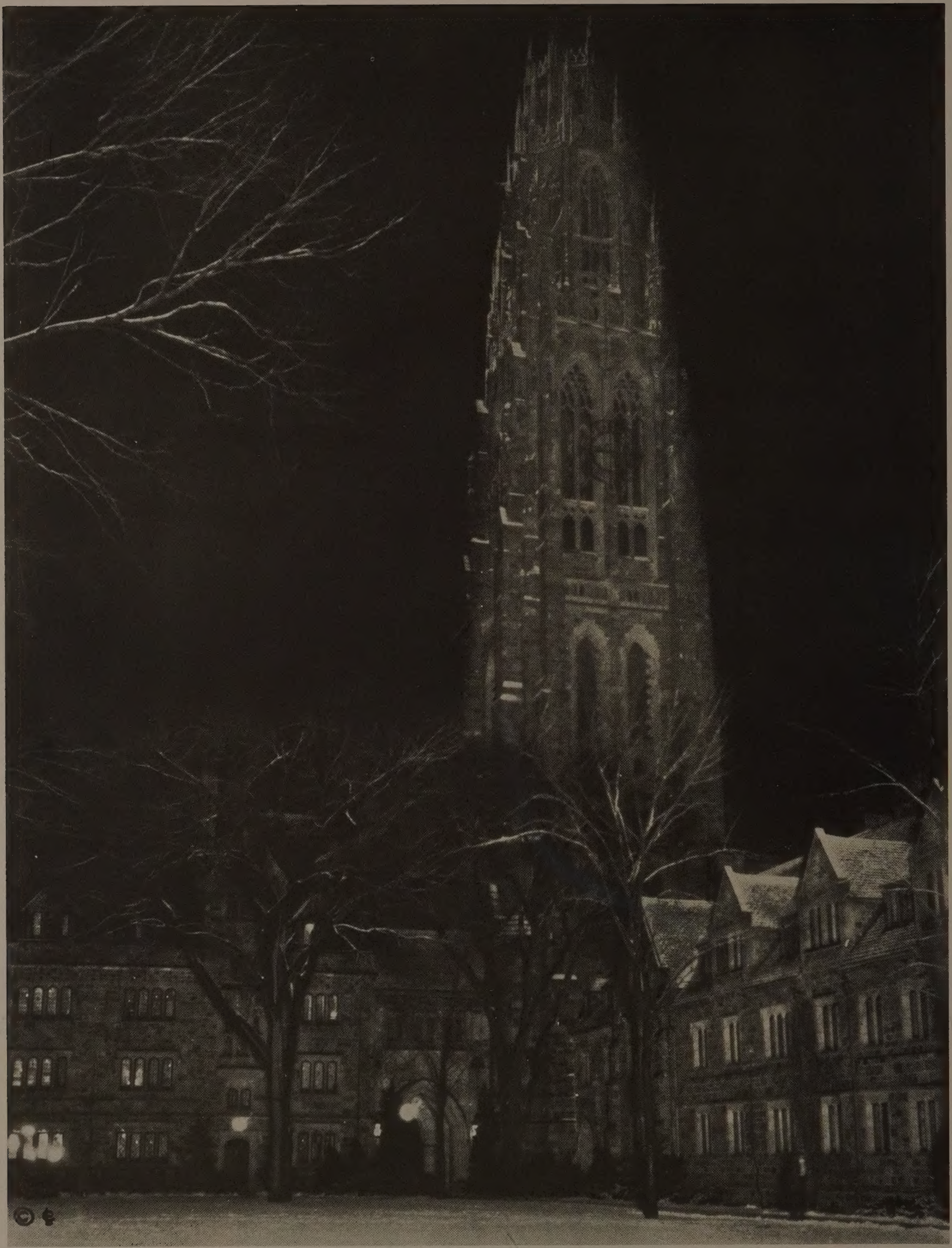
Perhaps, again, he has reports of concrete cases where the introduction supplied by the "wasteful" advertising has provided a contact that paid the cost many times over.

How about the annual deluge of calendars which brings its deluge of comment from architects about "wastefulness" and "duplication"? One recalls an architect who stated that he received forty-two calendars, and therefore considered it very wasteful. In the same letter he explained that the calendar received from the firm to whom he was writing was hung up in his office!

Have any of those who see the duplication in calendar advertising as "wasteful" stopped to think that *all* of the calendars received in an average office do not cost much more than a single call by a mediocre salesman?

No doubt there *are* many opportunities for better cataloguing of data which the architect can really use. But many a man experienced in advertising to architects knows that the typical architect's catalogue file will be full of unusable material, which got there largely because some one read one of the architect's pleas for file material and proceeded to send out bunk marked with A. I. A. File numbers.

The advertising man enjoys and benefits by the comments of the architect or any one else to whom he is advertising. He benefits by the comments of the salesmen who get the signatures on the dotted line. But if he does not always keep in the foreground of his mind the fact that the motivating power of advertising lies along such deep channels as to be unperceived by the average "surface-thinker," he will soon find that his *Known Results*—the one and only safe basis on which to judge advertising effectiveness—will begin to take a downward trend.



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